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BUREAU OF FISHERIES

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APPENDIXES

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CHECK LIST OF THE FISHES AND FISHLIKE VERTEBRATES OF NORTH AND MIDDLE AMERICA NORTH OF THE NORTHERN BOUNDARY OF VENEZUELA AND COLOMBIA ¹

By

DAVID STARR JORDAN, BARTON WARREN EVERMANN, and
HOWARD WALTON CLARK

INTRODUCTION

The present memoir comprises a list of all the fishes and fishlike vertebrates known to occur in the waters of north and middle America; more specifically all of continental America north of the Isthmus of Panama, and the outlying islands including the West Indies, the Greater and the Lesser Antilles, Greenland, Iceland, and the islands off the Pacific coast of Central America, Mexico, the United States, and Alaska. The salt-water species on the northern coasts of Colombia and Venezuela have been included. Those of the Galapagos, the Sea of Okhotsk, and the west coast of Kamchatka are not included. Oceanic species in general within the 1,000-fathom curve have been admitted, although it is not always easy to draw the line.

The majority of the species included will be found described in *Fishes of North and Middle America*, a 4-volume work by Jordan and Evermann published in 1896 to 1900 as Bulletin 47 of the United States National Museum. No other general work restricted to this continent and containing descriptions of all known species has been written. On that work was based the Check List of 1896 by Jordan and Evermann, of which the present Check List may be regarded as a revision.

In the present list are given, in as natural sequence as our present knowledge permits, (1) the names of all species and subspecies that the authors admit as valid, (2) as many of the vernacular or common names for each species as have been readily obtainable, (3) the known geographic distribution of each species, (4) the reference to the original description of the species, and (5) the reference to every real synonym. If a species has been described as new but once, there will, of course, be but one reference (as, for example, *Photocorynus spiniceps* on p. 509); if it has been described as new six times there will be six references (as, for example, *Eupomotis gibbosus* on p. 302). Thus, this work is really a check list of all the scientific names that have ever been applied to any American fish.

As 4,139 species and subspecies are admitted as valid, and as there are more than 3,000 real synonyms, it appears that each American fish has been described as new about two times on an average.

The first attempt at a Synopsis of the Fishes of North America was published by David Humphreys Storer in the *Memoirs of the Ameri-*

¹ Appendix X to the Report of the U. S. Commissioner of Fisheries for 1928. B. F. Doc. 1055.

can Academy of Arts and Sciences of Boston in 1846. That work enumerates 739 species distributed in 221 genera. As the fishes of the Rocky Mountain region, Mexico, the Pacific coast, and the West Indies were then scarcely known, this list was very incomplete and the nomenclature naturally was imperfect.

After an elaborate survey of the Pacific coast fish fauna in 1880, David Starr Jordan and the late Charles Henry Gilbert published a Synopsis of the Fishes of North America (1882), including all species known north of the Mexican boundary. The 1,340 species names in that synopsis were arranged in 487 genera; a few other species appeared in the appendix.

Jordan's Catalogue of the Fishes Known to Inhabit the Waters of North America North of the Tropic of Cancer (1887) was based on this synopsis and includes a number of additional species.

In the present memoir we have followed implicitly the rules of nomenclature laid down by the International Commission for Zoological Nomenclature, of which the senior author has been a member since 1908. One single case now under discussion (*Carcharias*) has not been disposed of fully as yet, and the view recommended by Jordan is adopted here tentatively. An important rule set forth by Jordan and Evermann in 1895 has not been acted upon. This rule reads: "We regard all generic names as different unless actually spelled alike." In accordance with decisions of the commission, another rule, which we have followed, is this: "No change is to be made in current nomenclature unless the case is fairly clear; as, for example, a matter of priority." In general we have followed current practice rather than accept questionable changes. One doubtful opinion should not be exchanged for another. The original orthography of all names (misprints aside) has been retained. Some supposed misprints (*Cypsilurus*, *Pachynathus*, etc.) have been referred to the International Commission, whose verdicts have been followed.

In accordance with the decision of the International Commission, we have disregarded (unless revived by later authors) the polynomial generic names of Gronow, Klein, Browne, and other able early writers, who failed to adopt the Linnæan code simply because they had not heard of it. This decision rests not on consideration of justice but upon that of permanence.

The most serious problem in taxonomy is that of the assignment of generic types to the genera of authors who had no conception of types. The "rule of the first reviser" was adopted by the commission at Boston in 1908, and the present writers have endeavored to follow it.

By far the most complete work on North American fishes is that by Jordan and Evermann, mentioned above—the Fishes of North and Middle America. In that work the authors recognized 1,113 genera, 3,263 species, and 133 subspecies—a total of 3,396 species and subspecies. The check list of Fishes and Fishlike Vertebrates of North and Middle America, by Jordan and Evermann, based upon the above and published in 1896, enumerates 3,100 species arranged in 1,053 genera, these being about double those in the Jordan catalogue of 1887, the additions being mainly from Mexico, the West Indies, and the deep seas.

The late modern period in systematic ichthyology is from 1880 to the present time and is especially signalized by the explorations of

the deep sea, of most of the continents, and of fossil beds. The unexampled explorations of Eigenmann in South America belong to this period, as also the records of Boulenger of the fishes of South Africa and the varied researches of Regan in the rich material of the British Museum. In this period the faunas of Australia, Japan, and Siberia have been studied critically and successfully. Our knowledge of fossil fishes is assuming definite form through the work of Woodward, Zittel, Hay, Errol Ivor White, and others who have given vertebrate paleontology, as related to ichthyology, a constructive turn.

We may again emphasize the distinction between the ancient and modern periods in animal taxonomy. Beginning with 1758, the date of Linnæus's *Systema Naturæ*, for 60 years a genus was usually regarded merely as a convenient pigeonhole into which species were thrown. With Cuvier's *Règne Animal* (1817) came the conception of arrangement "according to organization," or comparative anatomy. With Darwin's *Origin of Species*, 40 years later (1859), zoologists began, though slowly at first, to realize that a classification must be more than an inventory; that its basis must be genetic, and that the problems involved in natural grouping are vastly more complex than even great morphologists like Cuvier and Agassiz had realized. To paraphrase a sentence of Elliott Coues, "genera and species are but larger and smaller twigs of a tree, which we try to arrange as nearly as possible in accordance with nature's ramifications." This view, applied to taxonomy, involves the extensive subdivision of accepted genera, many of which were in the highest degree unnatural. Subdivision as practiced in the present paper may go too far in some cases, but our material must be analyzed first before we can group its parts in natural synthesis. No system of naming can progress beyond the knowledge on which it rests. We may emphasize here a statement attributed to Aristotle that "one should never expect a degree of accuracy which the subject matter does not permit."

Each tendency in evolution, large or small, diverging from the main current, should properly stand as a separate genus.

The problem of subspecies among fishes is especially incomplete and confused. Most of the marine species are clearly definable and not often subject to intergradations. Among the fresh-water forms, all sorts of modifications occur. A species, in general, is a definable group of related individuals that have run the gauntlet of life and have endured. Among our river fishes we find species of different types. There are numerous cases of species of compact though often wide distribution, in which all individuals are, to all appearances, similar. Examples of this type are the common perch (*Perca fluviatilis*), the common sucker (*Catostomus commersonii*), and the minnows (*Ericymba buccata* and *Exoglossum maxillingua*). Other forms, which we have elsewhere called geminate or twin species, may be distinct enough, having a few tangible characters of difference in spite of general resemblance. These, for the most part, are set apart from each other by barriers, their distinctness proportional to the efficiency of the barrier. Their origin may be due to the crossing of these barriers by individuals from the mass of their kind, thus acquiring a different environment with a different type of selection. Illustrations of geminate species set off by isolation may be found in abundance, as among the trout of western America, and other species,

especially in the Panama region, where many geminate species are found on each side of the Isthmus, which has split its species from their mates since Miocene times. The Miocene fossil fishes of California are largely geminate in origin, twins or parents of species now appearing on the coast. In most cases such forms are clearly distinct but to all appearance ancestral, the existing distinctions apparently due to varying incidents of selection in varying environment. Geminate species rarely inhabit the same region, though exceptions are known, attributable to reinvasion.

In many cases the distinctions between geminate forms are not complete, intergradations occurring along the line of the barriers or at different sections in climatic range. Types thus connected are known as subspecies. Subspecies are often nascent species; but in most cases a large amount of material is necessary before subspecies can be separated from geminate species. Among fresh-water fishes, each river basin shows some features of distinction, large or small, as does each oceanic island with regard to marine fishes. In most families of American river fishes studies of species have not been extensive enough to establish facts of intergradation. While in birds, reptiles, and mammals the subspecies are usually well defined and named, among the fishes this is still largely a matter of guesswork. Many authors base the recognition of subspecies not on actual intergradation but on guesses based on degrees of probability, a practice we have not followed. It has seemed to us better to regard related forms as distinct species until intergradation has been shown.

We find also among river fishes, and sometimes among marine forms (as in Lutianus), occasional individuals that to all appearance are hybrids. These are marked by a distinct blending of specific traits. They are extremely rare, however, often known only from a single example. A few hybrids are known or suspected among certain minnows, sunfishes, and darters. The best-known hybrids thus far recorded in America occur among the Centrarchidæ, or sunfishes, in which group they have been studied critically by Mr. Hubbs. Two common species (*Apomotis cyanellus* and *Eupomotis gibbosus*) figure particularly as probable parents. Hybrids may give rise to distinct species, but no example of this is known among our fishes.

Among fishes there are also occasional monstrosities, freaks, or "mutations," in which certain traits may be absent or exaggerated. Whether such qualities may be inherited is not known. If so, it is likely that they would soon be swamped by breeding with the mass unless especially protected by segregation. It does not appear that any species of fishes have arisen by mutation or from hybridization, though the latter possibility is greater than the former.

We may observe that compilations such as the present paper should constitute an exercise in modesty. Such work can never be made absolutely complete nor free from errors. It deals with the observations and thoughts of great minds, as also with a degree of ignorance, carelessness, and perversity, by which names have been multiplied without corresponding extension of ideas. Synonymy (the use of different names for the same group) in general represents the lack of exact knowledge or else a failure (often unavoidable) to deal justly with the work of others. It is, therefore, as has been said by Doctor Coues, often "a burden and disgrace to science."

Only those who have had experience in cataloguing, in a similar way, the species in some large group of animals or plants can appreciate the difficulties involved. In the first place, in order to make the list complete by the inclusion of all valid names and all real synonyms it was necessary to make a careful search of all ichthyological literature. It is too much to expect that we have been entirely successful in this search; some names probably have been overlooked. The verification of the thousands of references as to the publication, volume, page, date, spelling, and type locality, was even more exacting and arduous; but most difficult of all were the multitude of taxonomic problems involved. In many cases existing knowledge is not adequate for final settlement. It is not improbable that some of our decisions as to the taxonomic relationships of certain species and the validity of others may not meet the approval of all of our coworkers, but that is inevitable where knowledge is incomplete.

The present senior author, as a lifelong teacher of biology, may be pardoned a personal reference. Himself a student of Agassiz and Gill of the earlier period, he has had the honor of being also a friend, to some extent a protégé, of Baird, Günther, Vaillant, Lütken, Hilgendorf, and Cope. In addition, he has numbered among his own students many of those active in systematic ichthyology during the late modern period. Among these are James Francis Abbott, Willis Stanley Blatchley, Charles Harvey Bollman, Alembert Winthrop Brayton, Charles Victor Burke, Howard Walton Clark*, Herbert Edson Copeland, Frank Cramer, George Bliss Culver, Bradley Moore Davis, Mary Cynthia Dickerson, Charles Lincoln Edwards, Carl H. Eigenmann, Rosa Smith Eigenmann, Barton Warren Evermann, Bert Fesler, Morton William Fordice, Henry Weed Fowler, Charles Henry Gilbert, James Zaccheus Gilbert, David Kop Goss, Ulysses Simpson Grant IV, Arthur White Greeley, Joseph Grinnell, Harold Hannibal, Edmund Heller, Albert William Christian Theodore Herre, Jennie Horning, Carl Leavitt Hubbs, Elizabeth G. Hughes, Oliver Peebles Jenkins, Eric Knight Jordan, Philip Henry Kirsch, Richard Crittenden McGregor, Ernest Alexander McGregor, Charles Leslie McKay, Seth Eugene Meek, Charles William Metz, Heraclio R. Montalban, George Sprague Myers, Edward William Nelson, Robert Newland, Masamitsu Oshima, Keinosuke Otaki, Charles J. Pierson, Cora D. Reeves, Robert Earl Richardson, Cloudsley Rutter*, Norman Bishop Scofield, Alvin Seale, Michitaro Sindo, Tage Skogsberg, Robert Evans Snodgrass, John Otterbein Snyder, Edwin Chapin Starks, Joseph Swain, Shigeo Tanaka, Lionel William Wiedey, Wilbur Wilson Thoburn, Joseph C. Thompson, William Francis Thompson, Deogracias Villamin Villadolid, Yojiro Wakiya, Frank Walter Weymouth, Thomas Marion Williams, and Albert Jefferson Woolman.*

Those marked with an asterisk have also been students of Doctor Evermann, as have also the following: Frederick Morton Chamberlain, Ulysses Orange Cox, Samuel Frederick Hildebrand, Chancey Juday, William Converse Kendall, Clarence Hamilton Kennedy, William J. Moenkhaus, John Treadwell Nichols, Lewis Radcliffe, Josiah Thomas Scovell, and Alfred Cleveland Weed.

Many of these have made important contributions to our knowledge of fishes.

The preparation of this Check List has extended over a period of more than 20 years. It was begun in 1906 by the senior authors,

who worked upon it from time to time, as their other duties permitted, until 1925, when they were joined by the junior author, who thereafter gave most of his time to the work until its completion. The senior authors also have devoted much of their time to it since 1925.

During the progress of the work the authors have endeavored to consult and utilize every record bearing on the fish fauna of America. In addition to this they have received invaluable assistance and suggestions from virtually every present-day student of American fishes, among whom special mention should be made of the late Dr. Charles Henry Gilbert and Prof. John Otterbein Snyder of Stanford University, Dr. William Converse Kendall of the United States Bureau of Fisheries, Dr. Carl Leavitt Hubbs of the University of Michigan, George Sprague Myers of Stanford University, Barton Appler Bean of the United States National Museum, William Francis Thompson of the International Fisheries Commission, Dr. Arthur W. Henn of the Carnegie Museum, John Treadwell Nichols and Dr. E. W. Gudger of the American Museum of Natural History, and many others. To all these we express our indebtedness and grateful appreciation. For clerical assistance of one kind or another, particularly in looking up and verifying references, we are greatly indebted to Miss Jessie E. Drayton, Harry J. Christoffers, and Henry D. Aller, of the United States Bureau of Fisheries. Without the assistance so generously given by these and others, this memoir could hardly have been completed.

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STANFORD UNIVERSITY,
CALIFORNIA ACADEMY OF SCIENCES,
January 4, 1928.

Class I. LEPTOCARDII. Lancelets

Order A. CIRROSTOMI. Cirrostomes

Family 1. BRANCHIOSTOMIDÆ. Lancelets

Genus 1. BRANCHIOSTOMA Costa.

Branchiostoma Costa, Cenni Zoologici Napol., 49, 1834 (*B. lubricum* Costa=*lanceolatus* Pallas).

Amphioxus Yarrell, Hist. Brit. Fishes, 1836, 468 (*Limax lanceolatus* Pallas).

Amphioxides ² Gill, Amer. Nat., XXIX, 1895, 458 (*Branchiostoma pelagicum* Gunther).

1. *Branchiostoma virginiae* ³ Hubbs. *Virginia lancelet*.
Shallow waters, burying itself in the sand, from Chesapeake Bay to Florida; Beaufort, Cape Lookout, etc.
Branchiostoma virginiae Hubbs, Occ. Papers Mus. Zool. Univ. Mich., No. 105, 8, July 6, 1922, Sewall's Point, Va.
2. *Branchiostoma floridæ* Hubbs. *Florida lancelet*.
Coasts of Florida; Tampa, Pensacola, Cape Romans, St. Martin's Reef, Snapper Banks, etc.
Branchiostoma floridæ Hubbs, Occ. Papers Mus. Zool. Univ. Mich., No. 105, 7, July 6, 1922, Tampa Bay, Fla.
3. *Branchiostoma bermudæ* Hubbs. *Bermuda lancelet*.
Bermuda Islands.
Branchiostoma bermudæ Hubbs, Occ. Papers Mus. Zool. Univ. Mich., No. 105, 9, July 6, 1922, Bermuda.
4. *Branchiostoma caribæum* ⁴ Sundevall. *West Indian lancelet*.
West Indies.
Branchiostoma caribæum Sundevall, Vet. Akad. Förhandl., XI, 1853, 12, St. Thomas
5. *Branchiostoma californiense* Gill. *California lancelet*; *California amphioxus*.
Pacific coast of America from San Diego Bay southward to San Luis Gonzales Bay, Gulf of California; reported also from Panama. Abundant in shallow water, buried in the sand.
Branchiostoma californiense Gill, in Andrews, Studies Biol. Lab. Johns Hopkins Univ., V, 1893, 235, San Diego.

Family 2. EPIGONICHTHYIDÆ

Genus 2. ASYMMETRON Andrews.

Asymmetron Andrews, Studies Biol. Lab. Johns Hopkins Univ., V, 1893, 237 (*A. lucayanum* Andrews).

6. *Asymmetron lucayanum* Andrews. *Bahama lancelet*; *Bahama amphioxus*.
West Indies; Bemini and Nassau, Bahamas; Culebra Island; Humacao, Porto Rico; south to Brazil. Common.
Asymmetron lucayanum Andrews, Studies Biol. Lab. Johns Hopkins Univ., V, 1893, 237, Bemini, Bahamas.

² Based on larvæ showing no buccal cirri, found in the open sea near Hawaii

³ Until the recent studies of Hubbs, this species was wrongly identified with the European form (*B. lanceolatum*), which, however, does not occur in America

⁴ Represented on the coast of Brazil (Rio Janeiro, etc.) by *B. platæ* Hubbs.

Class II. CYCLOSTOMI. Lampreys

Order B. HYPEROTRETA. Hagfishes

Family 3. MYXINIDÆ. Hagfishes

Genus 3. MYXINE Linnæus.

Myxine Linnæus, Syst. Nat., ed. X, 1758, 650 (*M. glutinosa* L.).

Gastrobranchus Bloch, Ichth., XII, 1797, 51, tab. 413 (*G. cæcus* Bloch).

Murænoblenna Lacépède, Hist. Nat. Poiss., V, 1803, 647 (*M. olivacea* Lacépède).

Anopsus Rafinesque, Anal. Nat., 1815, 93 (*M. olivacea* Lacépède).

7. *Myxine limosa* Girard. Hagfish; Borer; Sucker; Slimefish.

Newfoundland, south to Cape Cod; Grand Manan Island, New Brunswick; replacing in the western Atlantic the European *M. glutinosa* L.; not abundant.

Myxine limosa Girard, Proc. Acad. Nat. Sci. Phila., X, 1858, 224, Grand Manan.

Family 4. EPTATRETIDÆ. Borers

Genus 4. POLISTOTREMA Gill.

Polistotrema Gill, Proc. U. S. Nat. Mus., IV, 1881, 30 (*Gastrobranchus dombe* Cuvier).

8. *Polistotrema stoutii* (Lockington). California hagfish; Lamperina.

Coast of California; common in Monterey Bay; Eel River, Humboldt Co., Calif., and other streams of northern California; San Francisco Bay.

Bdellostoma stoutii Lockington, Amer. Nat., XII, December, 1878, 793, Eel River, Calif.

9. *Polistotrema deani* Evermann and Goldsborough.

Alaska to Santa Barbara, Calif., in deep water.

Polistotrema deani Evermann and Goldsborough, Bull. U. S. Bur. Fish., XXVI, 1906, 225, fig. 1, Albatross station 4238 in Behm Canal off Nose Point in 229 to 231 fathoms.

Polistotrema curtiss-jamesi Townsend and Nichols, Bull. Amer. Mus. Nat. Hist., LII, 1925, 4, off California, lat. 34° to 36° in 440 to 585 fathoms.

Order C. HYPEROARTIA. Lampreys

Family 5. PETROMYZONIDÆ. Lampreys

Genus 5. PETROMYZON Linnæus.

Petromyzon (Artedi) Linnæus, Syst. Nat., ed. X, 1758, 230 (*P. marinus* L.).

Ammocætes Duméril in Cuvier, Règne Anim., ed. I, 1817, 119, variant spelling of *Ammocætes*, a name given to a larval form (*branchialis*).

Bathymyzon Gill, Proc. U. S. Nat. Mus., VI, 1883, 25 (*Bathymyzon bairdii* Gill); probably an old example that has lost teeth.

Oceanomyzon Fowler, Proc. Acad. Nat. Sci. Phila., LIX, 1907, 461 (*O. wilsoni* Fowler); like the preceding, supposed by Creaser and Hubbs to be an old individual from the Gulf Stream.

10. *Petromyzon marinus* Linnæus. Great sea lamprey; Lamprey eel; Sucker; Lamprey; River lamprey; Green lamprey; Shad lamprey; Nine-eyes.

Atlantic coasts of Europe and America, southward in America to Chesapeake Bay; abundant northward; ascending streams to spawn.

Petromyzon marinus Linnæus, Syst. Nat., ed. X, 1758, 230, European seas.

Petromyzon americanus LeSueur, Trans. Amer. Phil. Soc. Phila., I, 1818, 383, coast of Massachusetts.

Petromyzon nigricans LeSueur, loc. cit., 385, Massachusetts; small example from fresh water.

Ammocætes bicolor LeSueur, loc. cit., 386, Northampton, Mass. (larva).

? *Petromyzon* (*Bathymyzon*) *bairdii* Gill, Proc. U. S. Nat. Mus., VI, 1883, 254, Gulf Stream, north lat. 40° 02', west long. 68° 50' 30'', in 547 fathoms.

? *Oceanomyzon wilsoni* Fowler, Proc. Acad. Nat. Sci. Phila., LIX, 1907, 461; open sea.

11. *Petromyzon marinus dorsatus* Wilder. *Lake lamprey; Mud lamprey*.
Landlocked in Cayuga Lake and other lakes of western and central New York.
Petromyzon marinus dorsatus Wilder, in Jordan and Gilbert, Synop. Fishes North Amer., 1883, 869, Cayuga Lake, N. Y.
- Genus 6. **ICHTHYOMYZON** Girard. *River lampreys*.
Ichthyomyzon Girard, Pac. R. R. Surv., X, 1858, 381 (*Petromyzon argenteus* Kirtland).
Scolecospoma Girard, loc. cit., 385 (*Ammocætes concolor* Kirtland); larva of *argenteus*.
12. *Ichthyomyzon concolor* (Kirtland). *Silver lamprey*.
Great Lakes; upper Mississippi Valley; tributaries of Hudson Bay; south to Arkansas and Louisiana.
Petromyzon argenteus Kirtland, Zool. Ohio, 170, 1838, 197, Big Miami River, Ohio; name preoccupied.
Ammocætes concolor Kirtland, Jour. Bost. Soc. Nat. Hist., III, 1840, 473, plate, Mahoning River; Scioto River; larva.
Petromyzon bdelium Jordan, Cat. Fishes North Amer., 1885, 4; after Kirtland.
Ichthyomyzon castaneus Girard, Pac. R. R. Surv., X, 1858, 381, Galena, Minn.
Ichthyomyzon hirudo Girard, loc. cit., 382, Fort Smith, Ark.
- Genus 7. **REIGHARDINA** Creaser and Hubbs.
Reighardina Creaser and Hubbs, Occ. Papers Mus. Zool. Univ. Mich., No. 120, 1922, 4 (*Ichthyomyzon fossor* Reighard and Cummins=*Ammocætes unicolor* DeKay).
13. *Reighardina unicolor* (DeKay).
Ammocætes unicolor DeKay, N. Y. Fauna: Fishes, 1842, 383, pl. 79, fig. 250; Lake Champlain.
Ammocætes borealis Agassiz, Lake Superior, 1850, 252, Michigan River, Mich.
Ichthyomyzon fossor Reighard and Cummins, Occ. Papers Mus. Zool. Univ. Mich., 31, 1916, 1 to 12, pl. 1, 2, Michigan.
- Genus 8. **LETHENTERON** Creaser and Hubbs.
Lethenteron Creaser and Hubbs, Occ. Papers Mus. Zool. Univ. Mich., No. 120, 1922, 6 (*Lampetra wilderi* Gage=*Petromyzon appendix* DeKay).
14. *Lethenteron appendix* (DeKay). *Small black lamprey; Brook lamprey*.
New York to Iowa, in tributaries of the Great Lakes and of the Ohio and Mississippi, south to Virginia.
Petromyzon nigrum Rafinesque, Ichth. Ohiensis, 1820, 84, falls of Ohio River; name preoccupied.
Petromyzon appendix DeKay, N. Y. Fauna: Fishes, 1842, 381, pl. 64, fig. 211, Providence; Hudson Bay.
Lampetra wilderi Gage, in Jordan and Evermann, Fishes North and Mid. Amer., 1896, 13, Cayuga Lake, N. Y.
- Genus 9. **TETRAPLEURODON** Creaser and Hubbs.
Tetrapleurodon Creaser and Hubbs, Occ. Papers Mus. Zool. Univ. Mich., No. 120, 1922, 9 (*Lampetra spadicea* Bean).
15. *Tetrapleurodon spadiceus* (Bean). *Mexican lamprey*.
Known only from the Rio Lerma, near Guanajuato, and from Lago de Chapala, Mexico.
Lampetra spadicea Bean, Proc. U. S. Nat. Mus., X, 1887, 374, Pl. XX, fig. 6, Rio Lerma, Guanajuato, Mexico.
- Genus 10. **ENTOSPHEENUS** Gill.
Entosphenus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 331 (*Petromyzon tridentatus* Gairdner).

16. *Entosphenus tridentatus* (Gairdner). *Three-toothed lamprey; Western lamprey*.
Pacific coast of America, from southern California to Unalaska; ascending streams even to the headwaters of the Columbia for spawning purposes.
Petromyzon tridentatus Gairdner, in Richardson, Fauna Bor.-Amer., 1836, 293, falls of the Willamette River, Oreg.
Petromyzon lvidus Girard, Pac. R. R. Surv., X, 1858, Pt. 4, Fishes, 379, Willamette River, Oreg.
Petromyzon astori Girard, loc. cit., 380, Astoria, Oreg.
Ammocetes cibarius Girard, loc. cit., 383 (larva).
17. *Entosphenus ciliatus* (Ayres).
Streams of northern California.
Petromyzon ciliatus Ayres, Proc. Calif. Acad. Nat. Sci., I, 1855, 43, San Francisco.
Petromyzon ephexodon Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 331, Fort Reading, Calif.
- Genus 11. LAMPETRA (Bonnaterre) Gray. *Brook lampreys*.
Lampetra Bonnaterre, Enc. Meth., 1788; no paging; no type, used for all.
Lampreda Rafinesque, Anal. Nat., 1815, 94 (no species named; no description).
Præcus Rafinesque, loc. cit. (no species named); no description.
Lampetra Gray, Proc. Zool. Soc. Lond., 1851, 236 (*Petromyzon fluviatilis* L.).
18. *Lampetra ayresii* (Günther). *Western lamprey*.
Pacific coast of North America from the Fraser River southward to the Sacramento; very close to *L. fluviatilis* of Europe.
Petromyzon plumbeus Ayres, Proc. Calif. Acad. Nat. Sci., I, 1854, 27, San Francisco; name preoccupied.
Petromyzon ayresii Günther, Cat., VIII, 1870, 505, San Francisco; substitute for *plumbeus* Ayres, preoccupied.
19. *Lampetra borealis* (Girard). *Arctic lamprey*.
Streams of northern Alaska and Kamchatka.
Petromyzon borealis Girard, Pac. R. R. Surv., X, 1858, Pt. 4, Fishes, 377, Great Slave Lake; not *Ammocetes borealis* Agassiz.
Ammocetes aureus Bean, Proc. U. S. Nat. Mus., IV, 1881, 159, Yukon River.
- Genus 12. OKKELBERGIA Creaser and Hubbs.
Okkelbergia Creaser and Hubbs, Occ. Papers Mus. Zool. Univ. Mich., No. 120, 1922, 8 (*Petromyzon lamotteni* LeSueur).
20. *Okkelbergia lamotteni* (LeSueur).
Petromyzon lamotteni LeSueur, New York Fauna: Fishes, 1842, 382, pl. 79, fig. 249; no locality.
Ammocetes æpyptera C. C. Abbott, Proc. Acad. Nat. Sci. Phila., XII, 1860, 327 (type redescribed by Fowler, *ibid.*, 1901, 328; 1907, 466).

Class III. ELASMOBRANCHII. (Selachii, Plagiostomata, Chondropterygii, Antacca). Sharks; Skates and rays; Chimæras

Subclass SELACHII. Sharks

Order D. CESTRACIONTES

Suborder PROARTHRI

Family 6. HETERODONTIDÆ. Bullhead sharks

- Genus 13. GYROPLEURODUS Gill.
Gyroleurodus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 331 and 489 (*Cestracion francisci* Girard).
Tropidodus Gill, loc. cit., 489 (*Cestracion pantherinus* Valenciennes = *Cestracion quoyi* Fréminville).
21. *Gyroleurodus francisci* (Girard). *Bullhead shark*.
Coast of California; abundant south of Point Conception.
Cestracion francisci Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 196, Monterey Bay, Calif.

Order E. NOTIDANI. (Diplospondyli)

Suborder OPISTHARTHRI

Family 7. HEXANCHIDÆ. Cow sharks

Genus 14. HEXANCHUS Rafinesque.

Hexanchus Rafinesque, Caratteri, etc., 1810, 14 (*Squalus griseus* Bonnat-
terre).

Notidanus Cuvier, Règne Anim., ed. 1, 1817, 128 (*Squalus griseus* L.).

Monopterhinus Blainville, Faune Française, 1828, 77 (*Squalus griseus*
Gmelin).

22. *Hexanchus griseus* (Bonnaterre). Cow shark; *Caffa bota*.

Mediterranean to Scotland; Cuba.

Squalus griseus Bonnaterre, Ichth. R. 1788, 9; Mediterranean; after
le grisè Bonnaterre.

Squalus griseus Gmelin, Syst. Nat., I, 1795, 1789; after Broussonet.

23. *Hexanchus corinus* Jordan and Gilbert. Shovel-nosed shark.

Pacific coast of America; Monterey Bay to Puget Sound.

Hexanchus corinus Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880
(December 21), 352, Neah Bay, Wash., and Soquel, Calif.

Genus 15. NOTORYNCHUS Ayres.

Notorynchus Ayres, Proc. Calif. Acad. Nat. Sci., I, 1855, 73 (*Notorynchus*
maculatus Ayres).

24. *Notorynchus maculatus*^a Ayres.

Pacific coast of the United States, from Monterey Bay northward to
Washington; common northward, especially in Humboldt and San
Francisco Bays.

Notorynchus maculatus Ayres, Proc. Calif. Acad. Nat. Sci., I, 1855, 72,
San Francisco Bay.

Notorynchus borealis Gill, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 150,
Nisqually, Wash.

Order F. EUSELACHI

Suborder GALEI. True sharks

Family 8. SCYLLIORHINIDÆ. Cat sharks

Genus 16. SCYLLIORHINUS Blainville. Roussettes.

Catulus Valmont, Dict. Raisonné, IV, 1768, 451 (*C. saxatilis* Valmont=
Squalus stellaris L.); non binominal.

Catulus Smith, Proc. Zool. Soc. Lond., 1837, 85 (*Scyllium capense* Smith);
name preoccupied by *Catulus* Knipphof, 1759, a genus of insects.

Scylliorhinus Blainville, Jour. Phys., 1816, 263 (*Squalus canicula* L., as
restricted); spelled *Scylliorhinus* by Garman.

Scyllium Cuvier, Règne Anim., ed. I, 1817, 124 (*Squalus canicula* L., as
restricted).

25. *Scylliorhinus retifer* (Garman).

Gulf Stream in deep water; occasionally off South Atlantic coast.

Scyllium retiferum Garman, Bull. Mus. Comp. Zool., VIII, 1881, 233, off
coast of Virginia in deep water.

26. *Scylliorhinus cephalus* (Gilbert).

Gulf of California and southward in deep water.

Catulus cephalus Gilbert, Proc. U. S. Nat. Mus., XV, 1891, 541, deep
water near the Revillagigedo Islands and in the Gulf of California.

Genus 17. CEPHALOSCYLLIUM Gill.

Cephaloscyllium Gill, Ann. Lyc. Nat. Hist. N. Y., VII, 1861, 407, 412
(*Scyllium laticeps* A. Duméril).

^a Regarded by Garman as identical with *N. platycephalus* (Tenore) of the Mediterranean.

27. *Cephaloscyllium uter* (Jordan and Gilbert). *Swell shark*.
Monterey to San Diego; very abundant in Santa Barbara channel.
Catulus uter Jordan and Gilbert, in Jordan and Evermann, Fishes North and Mid. Amer., 1896, 25; Monterey, San Diego, and Santa Barbara Channel.

Genus 18. *APRISTURUS* Garman.

Apristurus Garman, Plagiostomia, Mem. Mus. Comp. Zool., XXXVI, 1913, 96 (*Scylliorhinus indicus* Brauer).

28. *Apristurus brunneus* (Gilbert).
Gulf of California and northward in deep water; Monterey Bay; Puget Sound; Hood Canal.
Catulus brunneus Gilbert, Proc. U. S. Nat. Mus., XIV, 1891, 542, Gulf of California.

29. *Apristurus profundorum* (Goode and Bean).
North Atlantic, in deep water.
Scylliorhinus profundorum Goode and Bean, Oceanic Ichth., 1896, 17, Gulf Stream.

Genus 19. *PRISTIURUS* (Bonaparte) Müller and Henle.

Pristiurus Bonaparte, Prospetto del Sistema d'Ittiologia Generale, 1831, 121 (*Galeus melanostomus* Rafinesque); name only; defined in Iconographia della Fauna Italica, 1841 (no paging).

Pristiurus Müller and Henle, Mag. Nat. Hist., III, Jan., 1838, 341 (*Galeus melanostomus* Rafinesque).

Pristidurus Bonaparte, Mem. Soc. Sci. Neuchâtel, II, 1839, 11, variant spelling.

30. *Pristiurus xaniurus* (Gilbert).
Pacific coast of southern and Lower California; abundant in deep water.
Catulus xaniurus Gilbert, Proc. U. S. Nat. Mus., XIV, 1891, 540, off southern and Lower California in 184 to 684 fathoms.

31. *Pristiurus aræ* Nichols.
Off the coast of Florida.
Pristiurus aræ Nichols, Amer. Mus. Novit., No. 256, March 12, 1927, 1, off the coast of Florida.

Family 9. *GINGLYMOSTOMIDÆ*. Nurse sharks

Genus 20. *GINGLYMOSTOMA* Müller and Henle.

Ginglymostoma Müller and Henle, Wiegmann's Archiv, I, 1837, 396 (*Squalus cirratus* Gmelin).

32. *Ginglymostoma cirratum* (Gmelin). *Nurse shark; Gata*.
West Indies and the west coast of Mexico; Cape Verde Islands; occasional on our South Atlantic coast.
Squalus cirratus Gmelin, Syst. Nat., I, 1492, 1788, American seas; after Broussonet.
Squalus punctatus Bloch and Schneider, Syst. Ichth., 1801, 134, Cuba; after Gata Hispanus of Parra
Squalus punctulatus Bloch and Schneider, loc. cit., 549, Cayenne.
Squalus argus Bancroft, Zool. Jour., V, 1832, 82, West Indies.
Ginglymostoma fulvum Poey, Memorias, II, 1861, 342, Habana; young.
Ginglymostoma caboverdianus Capello, Jour. Sci. Math. Phys. Nat. Lisbon, 1867, 167, Cape Verde Islands.

Family 10. *PSEUDOTRIAKIDÆ*

Genus 21. *PSEUDOTRIAKIS* Capello.

Pseudotriakis Capello, Jour. Sci. Math. Phys. Nat. Lisbon, IV, 1867, 321 (*Pseudotriakis microdon* Capello).

33. *Pseudotriakis microdon* Capello. *Peixe carago*.
Portugal; Amagansett, Long Island.
Pseudotriakis microdon Capello, Jour. Sci. Math. Phys. Nat. Lisbon, 1868, 321, pl. 5, fig. 1, Portugal.

Family 11. CARCHARIIDÆ. Gray sharks

Genus 22. CYNIAS Gill.

Cynias Gill, Proc. U. S. Nat. Mus., XXVI, 1903, 960 (*Squalus canis* Mitchill); embryos without placental attachment.

Mustelus Valmont de Bomare, Dict. Raisonné, ed. II, 1768, 786 (*Galeus asterias* Valmont = *Squalus canis* Mitchill; not given as a scientific name but as Latin vernacular).

34. *Cynias canis* ⁶ (Mitchill). *Dog shark; Dogfish; Smooth dogfish; Blue dog.*
Cape Cod to Cuba; abundant on the Atlantic coast of both continents.
Squalus canis Mitchill, Trans. Lit. Phil. Soc. N. Y., 1815, 486, New York.
Mustelus asterias Cloquet, Dict. Raisonné, 1820, 407, Europe.
Mustellus stellatus Risso, Europ. Mérid., III, 1826, 1126, Nice.
Mustelus plebejus Bonaparte, Fauna Italica, Pesci, Fasci., Tome III, 1834, 43, pl. 132, Italy.

35. *Cynias lunulatus* (Jordan and Gilbert). *Gato.*

West coast of Mexico; common in Gulf of California.

Mustelus lunulatus Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 108, Mazatlan, Mexico.

Genus 23. MUSTELUS Linck.

Mustelus Linck, Magazin für Neueste aus Physik und Naturgeschichte, 1790, 31 (*Squalus mustelus* Linnæus); not of Valmont de Bomare.

Galeus ⁷ Rafinesque, Caratteri, 1801, 13 (*Squalus mustelus* L., as restricted by Jordan and Gilbert).

Mustelus Leach, Observ. Squalus, 1813, 62 (*Squalus mustelus* L.).

Mustelus Cuvier, Règne Anim., ed. I, 1817, 128 (*Squalus mustelus* Cuv.).

Pleuracromylon Gill, Proc., Acad. Nat. Sci. Phila., XVI, 1864, 148, (*Mustelus lævis* Risso); embryo attached by a placenta.

36. *Mustelus mustelus* (Linnæus). *Smooth hound; Boce dulce.*

Southern Europe; occasional in America, lately taken on coast of New Jersey.

Squalus mustelus Linnæus, Syst. Nat., ed. X, 1758, 235, Europe.

Mustelus lævis Risso, Europ. Mérid., 1826, 327, Nice; and of European writers generally.

Galeus mustelus Rafinesque, Caratteri, 1910.

37. *Mustelus californicus* Gill.

California, north to Cape Mendocino.

Mustelus californicus Gill, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 148, San Francisco.

38. *Mustelus dorsalis* Gill.

Panama and neighboring waters, north to Gulf of California.

Mustelus dorsalis Gill, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 149, Panama.

Mustelus mento Cope, Proc. Amer. Phil. Soc., XVII, 1877, 47, Pacific Ocean at Pacasmayo, Peru.

Genus 24. RHINOTRIACIS Gill.

Rhinotriacis Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 486 (*Rhinotriacis henlei* Gill).

⁶ The European synonymy of *Mustelus mustelus* and *Cynias canis* is in a state of great confusion, as few of the earlier writers recognized any difference between the two species externally very much alike.

⁷ The genus *Galeus* of Rafinesque was based on species with spiracles, differing from *Squalus* by the presence of an anal fin. One new species is described, *Galeus melastomus*, later type of Bonaparte's genus *Pristiurus*; but on the same page and the next page Rafinesque speaks of other species—*Galeus vulpecula*, *G. catulus*, and *G. mustelus*. It is plain that *Squalus galeus* L. was his intended type, after the general custom of writers who elevated species to the rank of genus, but he does not mention that species in the paper nor in his Index, and as *Squalus galeus* was therefore not available as type, Jordan and Gilbert selected *Squalus mustelus* for that purpose, thus making *Galeus* Rafinesque a synonym of *Mustelus* Leach, rather than to displace *Pristiurus*. Apparently this procedure was allowable, unless some earlier author had chosen either *Pristiurus melastomus* or *Scylliorhinus catulus* (*canicula*) for that purpose.

39. *Rhinotriakis henlei* Gill.
Coast of California from Humboldt Bay to Monterey; rather rare.
Rhinotriakis henlei Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 486, San Francisco.
- Genus 25. **TRIAKIS** Müller and Henle.
Triakis Müller and Henle, Mag. Nat. Hist., II, 1838, 36 (*Triakis scyllium*); corrected to *Triakis* by authors.
40. *Triakis semifasciatum* Girard. *Cat shark; Leopard shark.*
Cape Mendocino to San Diego; common.
Triakis semifasciatum Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 196, Presidio de San Francisco.
Mustelus felis Ayres, Proc. Calif. Acad. Nat. Sci., 1854, 17, San Francisco.
- Genus 26. **GALEORHINUS** Blainville.
Galeorhinus Blainville, Bull. Soc. Philom., 1816, 121 (*Squalus galeus* L.; restricted by Gill).
Eugaleus Gill, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 148 (*Squalus galeus* L.); the first species named by Blainville being *Squalus mustelus*, for which reason Garman uses *Galeorhinus* as the name of the genus here called *Mustelus*.
41. *Galeorhinus zyopterus* Jordan and Gilbert. *Oil shark; Soupfin shark.*
Coast of southern and Lower California, from San Francisco to Cedros Island; very abundant.
Galeorhinus zyopterus Jordan and Gilbert, Synop. Fishes North Amer., 1883, 871, San Pedro, Calif.
- Genus 27. **TRIÆNODON** Müller and Henle.
Triænodon Müller and Henle, Plagiostomen, 1841, 55 (*Carcharias obesus* Rüppell).
42. *Triænodon obesus* (Rüppell).
Tropical Pacific; reported from Cocos Island.
Carcharias obesus Rüppell, Neue Wirbel., Fisch., 1835, 64, pl. 18, fig. 2, Djidda, Arabian Coast of Red Sea.
- Genus 28. **GALEOCERDO** Müller and Henle
Galeocerdo Müller and Henle, Plagiostomen, 1838, 59 (*Galeocerdo tigrinus* Müller and Henle).
Boreogaleus Gill, Ann. Lyc. Nat. Hist. N. Y., VII, 1861, 411 (*Squalus arcticus* Faber).
43. *Galeocerdo arcticus* (Faber). *Spotted shark; Leopard shark; Tiger shark; Tigron.*
Tropical seas; occasionally to Iceland, Cape Cod, and San Diego.
Squalus arcticus Faber, Fische Islands, 1829, 17, Iceland and neighboring seas.
Galeocerdo tigrinus Müller and Henle, Plagiostomen, 1838, 59, Pondicherry.
Galeus maculatus Ranzani, De Novis Speciebus Piscium, Dissert. Prima, in Novi Com. Acad. Boron., IV, 1840, 68, Brazil.
- Genus 29. **HEMIGALEUS** Bleeker.
Hemigaleus Bleeker, Verh. Bot. Gen., XIV, 1852, 45 (*Hemigaleus microstoma* Bleeker); not *Hemigalea*, an earlier genus of mammals.
44. *Hemigaleus pectoralis* Garman.
Coast of New England, probably in the Gulf Stream.
Hemigaleus pectoralis Garman, Bull. Mus. Comp. Zool., XLIV, 1906, 203, "Aquarial Gardens," the fishes in which were taken off Massachusetts and Rhode Island.
- Genus 30. **SCOLIODON** Müller and Henle.
Scoliodon Müller and Henle, Wiegmann's Archiv, I, 1837, 398 (*Scoliodon laticaudus* Müller and Henle).
45. *Scoliodon terræ-novæ* (Richardson). *Sharp-nosed shark; Newfoundland shark.*
Cape Cod to Florida; very common southward along the Atlantic coast.
Squalus (Carcharias) terræ-novæ Richardson, Fauna Bor.-Amer., III, 1836, 289, Newfoundland; an error, probably for Florida.
Squalus punctatus Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 483, New York; not of Bloch and Schneider.

46. *Scoliodon lalandi* (Muller and Henle).
West Indies to Brazil.
Carcharias lalandi Muller and Henle, Plagiostomen, 1838, 30, Rio Janeiro; Martinique; Guadeloupe.
47. *Scoliodon porosus* (Poey).
Cuba.
Squalus porosus Poey, Memorias, II, 1861, 339, tab. 19, L. 11, 12, Habana.
48. *Scoliodon longurio* (Jordan and Gilbert).
Pacific coast of Mexico.
Carcharias longurio Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 106, Mazatlan, Mexico.
- Genus 31. *APRIONODON* Gill.
Aprion Muller and Henle, Plagiostomen, 1838-1841, 31 (*Carcharias isodon* Muller and Henle); preoccupied.
Aprionodon Gill, Ann. Lyc. Nat. Hist. N. Y., VII, 1862, 411 (*Aprionodon punctatus* Gill; not *Squalus punctatus* Mitchell = *Carcharias isodon* Muller and Henle).
49. *Aprionodon isodon* (Müller and Henle).
Atlantic Ocean; recorded from New York, Virginia, and Cuba; probably rare.
Carcharias isodon Muller and Henle, Plagiostomen, 1838, 32, New York.
Carcharias punctatus Gunther, Cat., VIII, 1870, New York; not *Squalus punctatus* Mitchell, which is *Scoliodon terraenovæ*.
- Genus 32. *CARCHARIAS* Rafinesque. Gray shark; Requin.
Carcharias Rafinesque, Caratteri, 1810, 10 (*Squalus carcharias* L. intended, but *Carcharias taurus* the only species mentioned).
Carcharhinus Blainville, Bull. Soc. Philom., 1816, 264 (*Squalus commersonii* Blainville, apparently the same as *Carcharias lamia* Rafinesque).
Carcharias Cuvier, Règne Anim., ed. I, 1817, 125 ("Squalus carcharias," *Carcharias lamia* intended); not of Rafinesque.
Eulamia Gill, Ann. Lyc. Nat. Hist. N. Y., VII, 1861, 401 (*Carcharias lamia* Rafinesque; *Squalus commersonii* Blainville being intended = *Carcharias lamia* Rafinesque was *Carcharodon carcharias* Rafinesque, the specific name being a substitute for *Squalus carcharias* L.).
Platyodon Gill, loc. cit. (*Carcharias menisorrhah* Muller and Henle).
Isogomphodon Gill, loc. cit. (*Carcharias oxyrhynchus* Muller and Henle).
Lamiosis Gill, loc. cit. (*Carcharias temminckii* Muller and Henle).
Isoplagiodon Gill, loc. cit. (*Carcharias sorrah* Muller and Henle).
50. *Carcharias commersonii* (Blainville). Cub shark; Requin; Requem;
Lamia; Common gray shark.
Tropical parts of the Atlantic; common northward to the Florida Keys and in the Mediterranean; rarely straying northward to New York in the Gulf Stream.
Squalus commersonii Blainville, Bull. Soc. Philom., 1816, 121, Mediterranean.
Carcharias lamia Risso, Europ. Mérid., III, 1826, 19, Nice; not of Rafinesque.
Squalus longimanus Poey, Memorias, II, 1861, 338, Cuba.
51. *Carcharias lamiella* Jordan and Gilbert. Bay shark.
San Diego Bay and southward along the Mexican coast.
Carcharias lamiella Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 110, San Diego; regarded by Garman as identical with *C. commersonii* of the Atlantic.
52. *Carcharias platyrhynchus* (Gilbert).
Magdalena Bay, Lower California, to Galapagos Islands and the Revillagigedo Islands
Eulamia platyrhynchus Gilbert, Proc. U. S. Nat. Mus., XIV, 1891, 543, Clarion Island; Magdalena Bay; regarded by Garman as identical with *C. commersonii*.
53. *Carcharias platyodon* (Poey). Cub shark.
Cuba to Texas; abundant in the Gulf of Mexico
Squalus platyodon Poey, Memorias, II, 1861, 336, Habana.
Squalus obtusus Poey, loc. cit., 337, Habana.

54. *Carcharias milberti* Valenciennes. *Small blue shark; White shark.*
Cape Cod to Florida; not rare; recorded from the Mediterranean.
Carcharias (Prionodon) milberti Valenciennes, in Muller and Henle, Plagiostomen, 1838, 38, New York.
Carcharias cæruleus DeKay, N. Y. Fauna: Fishes, 1842, 49, New York.
Lamna caudata DeKay, loc. cit., 354, Brenton Reef, R. I.
55. *Carcharias obscurus* (LeSueur). *Dusky shark.*
North and Middle Atlantic; frequently on our coast.
Squalus obscurus LeSueur, Jour. Acad. Nat. Sci. Phila., I, 1818, 223, New York.
Carcharias falcipinnis Lowe, Proc. Zool. Soc. Lond., 1839, 90, Madeira.
Prionodon obvelatus Valenciennes, Poiss. Îles Canaries, 1839, 103, Canaries.
56. *Carcharias azureus* Gilbert and Starks.
Carcharias azureus Gilbert and Starks, Mem. Calif. Acad. Sci., IV, 1904, 11, Pl. II, fig. 5, Panama.
57. *Carcharias nicaraguensis* (Gill and Bransford). *Nigrone; Fresh-water shark.*
Lake Nicaragua (landlocked); also in the Bay of Panama.
Eulamia nicaraguensis Gill and Bransford, Proc. Acad. Nat. Sci. Phila., XXIX, 1877, 190, Lake Nicaragua.
58. *Carcharias henlei* Valenciennes.
Coast of Brazil, northward to Guiana.
Carcharias henlei Valenciennes, in Müller and Henle, Plagiostomen, 1838, 46, Cayenne.
Carcharias porosus Ranzani, De Novis Speciebus Piscium, Dissert. Prima., in Novi Com. Acad. Bonon., IV, 1840, 70, Brazil.
59. *Carcharias cerdale* (Gilbert).
Abundant at Panama.
Carcharhinus cerdale Gilbert, in Jordan and Evermann, Fishes North and Mid. Amer., III, 1898, 2746, Panama; united by Garman with *C. menisorrhæ* from the East Indies.
60. *Carcharias falciformis* Bibron. *Cazon de playa (wharf) shark.*
Cuba and neighboring waters.
Carcharias falciformis Bibron, in Muller and Henle, Plagiostomen, 1838, 47, Cuba.
Squalus tiburo Poey, Memorias, II, 1861, 331, Habana.
61. *Carcharias remotus* Valenciennes.
West Indies and Brazil.
Carcharias remotus Valenciennes, in Duméril, Hist. Nat. Poiss., I, 1865, 374.
Platypodon perezii Poey, Anal. Soc. Española Hist. Nat., V, 194, pl. 9, figs. 2, 3, Cuba.
62. *Carcharias acronotus* (Poey).
Cuba.
Squalus acronotus Poey, Memorias, II, 1861, 335, Cuba.
63. *Carcharias velox* (Gilbert).
Panama.
Carcharhinus velox Gilbert, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2747, Panama.
64. *Carcharias oxyrhynchus* Müller and Henle.
Surinam.
Carcharias oxyrhynchus Müller and Henle, Plagiostomen, 1838, 41, Surinam.
65. *Carcharias limbatus* Müller and Henle. *Carconetta.*
Tropical seas north to Florida; a stray example taken at Woods Hole, Mass.
Carcharias (Prionodon) limbatus Müller and Henle, Plagiostomen, 1838, 49, Martinique.
Isogomphodon maculipinnis Poey, Repertorio, I, 1866, 191, Cuba.
Carcharias (Prionodon) millerii Steindachner, Sitzungs. Kais. Akad. Wiss. Wien, LVI, 1867, 356, West Indies.
Carcharias microps Lowe, Proc. Zool. Soc. Lond., 1840, 38, Madeira.
Prionodon cucurri Castelnau, Anim. Amer. Sud. Poiss., 1855, 99, Bahia.

66. *Carcharias æthalarus* Jordan and Gilbert.
Mazatlan to Panama.
Carcharias æthalarus Jordan and Gilbert, Proc., U. S. Nat. Mus., V, 1882, 104, Mazatlan; regarded by Garman as inseparable from *C. limbatus*.
67. *Carcharias natator* (Meek and Hildebrand).
Gulf of Panama.
Carcharhinus natator Meek and Hildebrand, Marine Fishes of Panama, Field Mus. Nat. Hist., Zool., XV, Pt. I, Dec. 20, 1923, 40, pl. 1, fig. 1, Panama City fish market.
68. *Carcharias fronto* Jordan and Gilbert. *Tiburón*.
Pacific coast of Mexico.
Carcharias fronto Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 102, Mazatlan. Regarded by Garman as inseparable from *C. milberti*.
- Genus 33. **HYPOPRION** Müller and Henle.*
Hypoprion Müller and Henle, Plagiostomen, 1838, 34 (*Carcharias maculoti* Müller and Henle).
Hypoprionodon Gill, Ann. Lyc. Nat. Hist. N. Y., VII, 1861, 401 (*Carcharias hemiodon* Valenciennes).
69. *Hypoprion brevirostris* Poey.
West Indies, north to Charleston and Pensacola.
Hypoprion brevirostris Poey, Repertorio, II, 1868, 451, Tab. 4, Cuba.
70. *Hypoprion signatus* Poey.
Cuba.
Hypoprion signatus Poey, Synop., 1868, 452, Cuba.
Hypoprion longirostris Poey, Enumeratio, 1876, 199, Cuba.
- Genus 34. **PRIONACE**† Cantor.
Galeus Valmont de Bomare, Dict. Raisonné, I, 1768, 371, "Cagnot bleu, *Galeus glaucus* Valmont"; Latin vernacular.
Prionodon Muller and Henle, Plagiostomen, 1838, 36 (*Squalus glaucus* L.); name preoccupied.
Prionace Cantor, Malayan Fishes, 1850, 399, substitute for *Prionodon* (*Squalus glaucus* Linnæus).
Cynocephalus Gill, Ann. Lyc. Nat. Hist. N. Y., VII, 1861, 401 (*Squalus glaucus* L.); after Klein, whose names are not binomial.
71. *Prionace glauca* (Linnæus). *Great blue shark*.
A large shark of the warm seas, occasionally taken on our coasts, both Atlantic and Pacific.
Squalus glaucus Linnæus, Syst. Nat., ed. X, 1758, 235, Seas of Europe.
Squalus cæruleus Blainville, Faune Française, 1828, 91, Mediterranean.
Squalus hirundinaceus Valenciennes, in Müller and Henle, Plagiostomen, 1838, 37, Brazil.

Family 12. SPHYRNIIDÆ. Hammer-headed sharks

- Genus 35. **RENICEPS** Gill.
Reniceps Gill, Ann. Lyc. Nat. Hist. N. Y., VII, 1862, 403 (*Squalus tiburo* Linnæus).
72. *Reniceps tiburo* (Linnæus). *Shovelhead shark*; *Bonnethead shark*.
Atlantic Ocean, abundant from Long Island southward; Pacific Ocean ranging from Mazatlan and Bay of Panama to China.
Squalus tiburo Linnæus, Syst. Nat., ed. X, 1758, 234, America.
- Genus 36. **PLATYSQUALUS** Swainson.
Platysqualus Swainson, Class. Anim., II, 1839, 318 (*Zygæna tudes* Cuvier, in Valenciennes); misnamed *Zygæna tiburo*.

* Müller and Henle's Systematische Beschreibung der Plagiostomen was published from 1838 to 1841. Garman, probably correctly, gives this and other genera of sharks the date of 1841. Some of them appeared earlier in periodicals.

† The reasons for not accepting the names of Valmont de Bomare in scientific nomenclature are given by Jordan and Evermann, Genera of Fishes, I, p. 27. These names (*Galeus*, *Vulpecula*, *Catulus*, and *Mustelus*) are binomial only by accident, and not accepted by the author himself as generic in his list of genera (1791). These are, however, accepted by Garman (Plagiostoma, 1913).

73. *Platysqualus tudes* (Cuvier).
Gulf of California to Bay of Panama; West Indies; Mediterranean Sea and Indian Ocean.
Zygæna tudes Cuvier, in Valenciennes, Mém. Mus. Hist. Nat., IX, 1822, 225, Nice; after *Pantouffier* of Risso.
- Genus 37. *SPHYRNA* Rafinesque.
Sphyrna Rafinesque, Indice, 1810, 60 (*Squalus zygæna* Linnæus).
Cestrorhinus Blanville, Jour. Phys., 1816, 264 (*Squalus zygæna* Linnæus).
Zygæna Cuvier, Règne Anim., ed. I, 1817, 127 (*Squalus zygæna* Linnæus); name preoccupied.
Sphyrichthys Thienemann, Lehrbuch der Zoologie, III, 1828, 408 (*Squalus zygæna* Linnæus).
Eusphyra Gill, Ann. Lyc. Nat. Hist. N. Y., VII, 1861, 412 (*Squalus zygæna* Linnæus).
Cestracion Garman, Plagiostomen, 1813, 133 (*Squalus zygæna* L.); after Klein; not binomial; not of Cuvier.
74. *Sphyrna zygæna* (Linnæus). *Hammerhead shark; Hammerhead; Shovel-nose shark.*
Cape Cod and Point Conception southward; Bay of Panama and Mazatlan in Pacific; and across to Hawaii and Japan; abundant.
Squalus zygæna Linnæus, Syst. Nat., ed. X, 1758, 234, Europe; America.
Zygæna malleus Valenciennes, Mém. Mus. Hist. Nat., IX, 1822, 223, pl. 11, fig. 1.
Zygæna lewini Lord, in Griffith, Animal Kingdom, X, 1834, 640, pl. 50, New Holland.
Zygæna subarcuata Storer, Proc. Bost. Soc. Nat. Hist., III, 1848, 71, Cape Cod.

Family 13. RHINEODONTIDÆ. Whale sharks

- Genus 38. *RHINEODON* Smith.
Rhincodon Smith, Zool. Jour. Lond., No. XVI, 1829, 443 (*R. typicus* Smith); misprint for *Rhineodon*
Micristodus Gill, Proc. Acad. Nat. Sci. Phila., XVII, 1865, 177 (*M. punctatus* Gill).
Rhinodon and *Rhincodon* of authors.
75. *Rhineodon typicus* Smith. *Whale shark; Mhor; Chagrín; Tiburon ballenas; Tint reu; East Indian basking shark.*
Coast of Florida; Gulf of California; Cape of Good Hope; Japan to China; India; rare but widely diffused.
Rhincodon typicus Smith, Zool. Jour. Lond., No. XVI, 1829, 443, 444, Table Bay, Cape of Good Hope.
Micristodus punctatus Gill, Proc. Acad. Nat. Sci. Phila., XVII, 1865, 177, Gulf of California.

Family 14. ALOPIIDÆ. Thresher sharks

- Genus 39. *ALOPIAS* Rafinesque.
Vulpecula Valmont de Bomare, Dict. Raisonnée, III, 1768, 740 (*V. marina* Valmont); Latin vernacular not intended as a generic name.
Alopias Rafinesque, Caratteri, 1810, 12 (*Alopias macrourus* Rafinesque = *Alopecias vulpes* Gunther).
Alopecias Müller and Henle, Plagiostomen, 1838, 74, amended orthography.
76. *Alopias vulpinus* (Bonnaterre). *Thresher; Fox shark; Swingletail; Longtail shark; Fish shark; Sea fox; Sea ape; Pez zorro; Pesca pavone.*
Mediterranean, Atlantic, and Pacific.
Vulpecula marina Valmont, Dict. Raisonnée, III, 740; not eligible.
Squalus vulpinus Bonnaterre, Tableau Encycl. Ichth., 1788, 9, Mediterranean; after Pennant.
Squalus vulpes Gmelin, Syst. Nat., I, 1789, 1496, Mediterranean; after Pennant.
Alopias macrourus Rafinesque, Caratteri, 1810, 12, Sicily.
Galeus vulpecula Rafinesque, Caratteri, 1810, 15; passing notice.

Family 15. ODONTASPIDÆ. Sand sharks

Genus 40. ODONTASPIS Agassiz.

Odontaspis Agassiz, Poiss. Fossiles, III, 1836, 87 (*Squalus ferox* Risso).

77. *Odontaspis littoralis* (Mitchill). Sand shark; Shovelnose shark; Horned dogfish; Picked dogfish; Dogfish; Bone-dog; Skittle-dog; Hoe.

Atlantic coast between Cape Cod and Cape Hatteras; regarded by Garman as not separable from *Carcharias taurus* Rafinesque of the Mediterranean.

Squalus americanus Mitchill, Trans. Lit. and Phil. Soc. N. Y., I, 1815, 483, New York; not of Shaw.

Squalus littoralis and *Squalus macrodus* Mitchill, Amer. Month. Mag., II, 1818, 328, New York.

Carcharias griseus Ayres, Bost. Jour. Nat. Hist., IV, 1843, 288, Long Island.

Family 16. LAMNIDÆ. Mackerel sharks; Man-eaters

Genus 41. LAMNA Cuvier. Porbeagles.

Lamna Cuvier, Règne Anim., ed. I, 1817, 126 (*Squalus cornubicus* Gmelin).

Lamia Risso, Europ. Mérid., III, 1826, 123 (*Squalus cornubicus* Gmelin); name preoccupied.

Selanonius Fleming, Brit. Anim., 1828, 169 (*Selanonius walkeri* Fleming = *Squalus cornubicus* Gmelin).

78. *Lamna nasus* (Bonnaterre). Porbeagle; Mackerel shark; Salmon shark.

North Atlantic and North Pacific; abundant in central and southeast Alaska.

Squalus nasus Bonnaterre, Tableau Encycl., Ichth., 1788, 10, shores of Cornwall.

Squalus cornubicus Gmelin, Syst. Nat., I, 1789, 1497, shores of Cornwall.

Squalus pennanti Walbaum, Artedi Pisc., 1792, 517, Cornwall; after Pennant.

Squalus monensis Shaw, Gen. Zool., V, 1804, 350, Anglesea.

Selanonius walkeri Fleming, Brit. Anim., 1828, 169, Lochfyne, Argyleshire.

Genus 42. ISURUS Rafinesque.

Isurus Rafinesque, Caratteri, 1810, 11 (*Isurus oxyrinchus* Rafinesque).

Oxyrhina Agassiz, Poiss. Fossiles, III, 1836, 276 (*Isurus spallanzani* Rafinesque = *Isurus oxyrinchus* Rafinesque).

Isoropsis Gill, Ann. Lyc. Nat. Hist. N. Y., VII, 1862, 398, 409 (*I. dekayi* Gill).

79. *Isurus punctatus* (Storer). Mackerel shark.

Atlantic coast of United States; common.

Lamna punctata Storer, Rept. Fishes Mass., 1839, 185, pl. 3, fig. 2, Massachusetts.

Oxyrhina dekayi Gill, Cat. Fish. E. Coast N. Amer., Suppl. Proc. Acad. Nat. Sci. Phila., XIII, 1861, 60, after Storer; name misprint for *dekayi*.

80. *Isurus tigris* (Atwood). Mackerel shark; Mackerel porbeagle; Dentuda.

Cape Cod to West Indies; not generally common except in the Gulf of Mexico.

Lamna punctata DeKay, N. Y. Fauna: Fishes, 1842, 352, New York; not *Squalus punctatus* Mitchill.

Isoropsis dekayi Gill, Ann. Lyc. Nat. Hist. N. Y., VII, 1862, 409; after DeKay; not *Oxyrhina dekayi* Gill, 1861.

Carcharias tigris Atwood, Proc. Bost. Soc. Nat. Hist., XII, 1869, 268, Provincetown, Mass.

81. *Isurus oxyrinchus* Rafinesque. Mackerel shark; Pesce tondo; Cane de mare.

Mediterranean Sea and neighboring parts of the Atlantic; occasional on the Atlantic coast of America.

Isurus oxyrinchus Rafinesque, Caratteri, 1810, 12, Palermo.

Isurus spallanzani Rafinesque, Indice, 1810, 60, Sicily; after Spallanzani.

Oxyrhina gomphodon Müller and Henle, Plagiostomen, 1838, 68, Atlantic Ocean.

Squalus rostratus Macri, Mem. Ac. Sci. Napoli, I, 1819, 55, Tab. 1, fig. 2, Naples.

Genus 43. *CARCHARODON*¹⁰ Smith. *Man-eater sharks; Great white sharks.*
Carcharodon Andrew Smith, in Müller and Henle, Mag. Nat. Hist., II, second article, January, 1838, 37 (*Carcharodon capensis* Smith = *Squalus carcharias* Linnæus).

82. *Carcharodon carcharias* (Linnæus). *Man-eater shark; Great white shark.*
 Temperate and tropical parts of Atlantic and Pacific; occasionally on our coasts, north to New York and Monterey Bay. A dangerous shark.
Squalus carcharias Linnæus, Syst. Nat., ed. X, 1758, 235, Europe; after Artedi.
Carcharias lamia Rafinesque, Indice, 1810, 44, after Linnæus; not of Risso and later authors.
Carcharodon verus Agassiz, Poiss. Fossiles, III, 1838, 91.
Carcharodon rondeleti Müller and Henle, Plagiostomen. 1838, 70, Mediterranean Sea and Atlantic Ocean.
Carcharodon Smith, in Bonaparte, Mem. Soc. Sci. Neufchâtel. II, 1839, 9 (errata), New York and Monterey Bay.
Carcharias atwoodi Storer, Proc. Bost. Soc. Nat. Hist., III, 1848, 72, Provincetown.
Carcharodon capensis Smith, Ills. Zool. S. Africa, Pisces, 1849, pl. 4, Cape of Good Hope.

Family 17. CETORHINIDÆ. Basking sharks

Genus 44. *CETORHINUS* Blainville.

Cetorhinus Blainville, Bull. Soc. Philom., 1810, 169 (*Squalus gunneri* Blainville = *Squalus maximus* Gunner).
Selache Cuvier, Règne Anim., ed. I, 1817, 129 (*Squalus maximus* Gunner).
Polyprosopus Couch, Hist. Brit. Fishes, I, 1862, 67 (*Squalus rashleighanus* Couch = *Squalus maximus* Gunner).

83. *Cetorhinus maximus* (Gunner). *Basking shark; Pélérin; Elephant shark; Bone shark; Sailfish; Sunfish; Hoe-mother; Capidoli or oilfish.*
 Arctic seas, straying southward to Portugal, Virginia, and California.
Squalus maximus Gunner, Trondhjem Skrift., III, 1765, 33, coast of Norway.
Squalus gunneri Blainville, Bull. Sci. Philom., 1810, 256; after Gunner.
Squalus pelegrius Blainville, loc. cit., 257, Europe.
Squalus homianus Blainville, loc. cit., 257, Europe.
Cetorhinus shavianus Blainville, loc. cit., 264, Europe.
Squalus isodus Saverino Macri, Mem. della R. Ac. Sci. Napoli, I, 1819, 55, pls. 1 and 2, Naples.
Squalus elephas LeSueur, Jour. Acad. Nat. Sci. Phila., II, 1821, 343, New Jersey.
Squalus rashleighanus Couch, Trans. Linn. Soc., XIV, 1825, 91, Cornwall.
Squalus cetaceus Gronow, Cat. Fishes, 1854, 6, Norway.
Polyprosopus macer Couch, Hist. Brit. Fishes, I, 1877, 68, England.

¹⁰ As to the authorship of the name *Carcharodon*, we have this information from the late Allan R. McCulloch, of the Australian Museum:

"The name *Carcharodon* is not used by Smith. The earliest reference to it is that of Müller and Henle, as quoted above. These authors saw Smith's specimens (p. 33) and perhaps heard his paper read at the Zoological Society in September, 1837. They, therefore, quoted the name as of Smith. But Smith's paper was not published until February 13, 1838, he having read Müller and Henle's paper about a month previously, in which *Carcharodon* appeared, and he evidently withdrew it with names he refers to in his paper." (In lit. June 28, 1920.)

Order G. TECTOSPONDYLII.¹¹ Tectospondylous sharks

Suborder SQUALOIDEI. (Sharks without anal fin)

Family 18. SQUALIDÆ. Dogfishes

Genus 45. SQUALUS Linnæus.

Squalus (Artedi) Linnæus, Syst. Nat., ed. X, 1758, 233 (includes all sharks; *Squalus acanthias* Linnæus made type by subsequent writers, following Rafinesque, 1810).

Acachorhinus Blainville, Jour. Phys., 1816, 263 (*Squalus acanthias* Linnæus).

Acanthias Risso, Europ. Mérid., III, 1826, 131 (*Squalus acanthias* Linnæus).

84. *Squalus acanthias* Linnæus. *Spiny dogfish*; *Cod shark*; *Codfish shark*; *Thornback shark*; *Picked dogfish*; *Bone-dog*; *Dogfish*; *Skiille-dog*.

North Atlantic, on both coasts and about Cuba; abundant along shores of Northern and Middle States.

Squalus acanthias Linnæus, Syst. Nat., ed. X, 1758, 233, coast of Europe.

Acanthias vulgaris Risso, Europ. Mérid., III, 1826, 131, Nice.

Acanthias americanus Storer, Synop. N. Amer. Fishes, in Mem. Am. Acad., II, 1846, 506, Massachusetts.

85. *Squalus suckleyi* (Girard). *California dogfish*; *Dogfish*.

Pacific coast of America, from Santa Barbara to the Aleutian Islands; abundant in southeast and middle Alaska, through to Kamchatka.

Spinax (*Acanthias*) *suckleyi* Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 196, Fort Steilacoom, Wash.

Genus 46. CENTROSCYMNUS Bocage and Capello.

Centroscymnus Bocage and Capello, Proc. Zool. Soc. Lond., 1864, 263 (*C. celolepis* Bocage and Capello).

86. *Centroscymnus celolepis* Bocage and Capello.

Coast of Portugal and neighboring parts of the Atlantic; Gloucester, Mass., and Nova Scotia Banks.

Centroscymnus celolepis Bocage and Capello, Proc. Zool. Soc. Lond., 1864, 263, Portugal.

Genus 47. CENTROSCYLLIUM Müller and Henle.

Centroscyllium Müller and Henle, Plagiostomen, 1838, 191 (*Spinax fabricii* Reinhardt).

87. *Centroscyllium fabricii* (Reinhardt).

Greenland seas; Gloucester and the Nova Scotia Banks.

Spinax fabricii Reinhardt, Dansk. Vidensk. Selsk. Forhandl., III, 1828, XVI, Greenland.

Genus 48. ETMOPTERUS Rafinesque.

Etmopterus Rafinesque, Caratteri, 1810, 14 (*Etmopterus aculeatus* Rafinesque = *Squalus spinax* L.).

Acanthidium Lowe, Proc. Zool. Soc. Lond., 1839, 91 (*Acanthidium pusillum* Lowe, as restricted by Jordan and Evermann, 1896; restricted by Garman, 1912, to *A. calcea*, a species of *Deania* Jordan and Snyder).

88. *Etmopterus hillianus* (Poey).

West Indies; Cuba; St. Kitts.

Spinax hillianus Poey, Memorias, II, 1861, 340, Cuba.

Family 19. SOMNIOSIDÆ. Sleeper sharks

Genus 49. SOMNIOSUS LeSueur.

Somniosus LeSueur, Jour. Acad. Nat. Sci. Phila., I, 1818, 222 (*Somniosus brevipinna* LeSueur = *Squalus microcephalus* Bloch and Schneider.)

Lamargus Müller and Henle, Plagiostomen, 1838, 93 (*Squalus borealis* Scoresby = *Squalus microcephalus* Bloch and Schneider).

Leiodon Wood, Proc. Bost. Soc. Nat. Hist., II, 1847, 174 (*Leiodon echinatum* Wood = *Squalus microcephalus* Bloch and Schneider).

Rhinocymnus Gill, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 264 (*Scymnus rostratus* Risso).

¹¹ We group together under this name those sharks that, like the rays, lack the anal fin and that have also simplified or degenerate vertebrae, in which the hard material is arranged in rings without radiation.

89. *Somniosus microcephalus* (Bloch and Schneider). *Sleeper shark; Nurse shark.*
 Arctic seas, south to Cape Cod, Oregon, San Francisco Bay, and France.
Squalus microcephalus Bloch and Schneider, Syst. Ichth., 1801, 135, northern seas.
Somniosus brevipinna LeSueur, Jour. Acad. Nat. Sci. Phila., I, 1818, 222, Massachusetts.
Squalus borealis Scoresby, Arct. Reg., I, 1820, 538, pl. 15, Arctic.
Squalus norvegicus Blainville, Faune Française, 1828, 61, Norway.
Squalus glacialis Faber, Natur der Fische Islands, 1829, 23, Iceland.

Family 20. ECHINORHINIDÆ. Bramble sharks

Genus 50. ECHINORHINUS Blainville.

Echinorhinus Blainville, Bull. Soc. Philom., 1816, 121 (*Squalus spinosus* Gmelin).

Goniodus Agassiz, Poiss. Fossiles, III, 1836, 183 (*Squalus spinosus* Gmelin).

90. *Echinorhinus brucus* (Bonnaterre). *Bramble shark.*
 Atlantic coasts of Europe, America, and Africa; scarce in the western Atlantic.
Squalus brucus Bonnaterre, Tableau Encycl., Ichth., II, 1788, 1500, "the ocean."
Squalus spinosus Gmelin, Syst. Nat., 1789, 1500, "the ocean."
Echinorhinus obesus Smith, Ills. Zool. So. Africa, Fishes, 1845, Pl. I, Cape of Good Hope.

Suborder SQUATINOIDEI

Family 21. SQUATINIDÆ. Angel sharks

Genus 51. SQUATINA Duméril.

Squatina Valmont de Bomare, Dict. Raisonnée, I, 1768, 117; not eligible.

Rhina Klein, Neuer Schauplatz, II, 1776, 587; non-binominal.

Squatina Duméril, Zool. Analyt., 1806, 102 (*Squatina angelus* Duméril = *Squalus squatina* Linnæus).

Rhina Rafinesque, Caratteri, 1810, 14 (*Squalus squatina* L.)

91. *Squatina duméril*¹² LeSueur. *Angelfish; Monkfish.*
 Atlantic coast of United States; Newport, R. I.
Squatina duméril LeSueur, Jour. Acad. Nat. Sci. Phila., I, 1818, 225, pl. 10, probably Florida.
92. *Squatina squatina* (Linnæus). *Monkfish; Angelfish; Squato; Shark ray; Monkeyfish; Kingston; Fiddlefish; Little bullhead shark.*
 Atlantic on both coasts, north to southern England and Cape Cod.
Squalus squatina Linnæus, Syst. Nat., ed. X, 1758, 233, coasts of Europe.
Squatina lævis Cuvier, Règne Anim., ed. I, 1817, 131; after Linnæus.
Squatina vulgaris Risso, Ichth. Nice, 1810, 45, Nice.
Squatina fimbriata Müller and Henle, Plagiostomen, 1838, 101, Mediterranean Sea.
Squatina oculata Bonaparte, Faun. Ital., Pesc., XXVIII, 1840, Fasci. 147, pl. 143, Italy.
Squatina lewis Couch, Trans. Linn. Soc. Lond., XIV., 1825, 90, Cornwall.
93. *Squatina californica* Ayres. *California angel shark.*
 Pacific coast of America, from southeastern Alaska southward; not rare on coast of California.
Squatina californica Ayres, Proc. Calif. Acad. Nat. Sci., II, 1859, 29, San Francisco.

¹² As this species has not been distinguished generally from its near relative, *Squatina squatina* L., it is possible that all western Atlantic records belong to it.

Order H. BATOIDEI. Rays

Suborder SARCURA. Thick-tailed rays

Family 22. PRISTIDÆ. Sawfishes

Genus 52. PRISTIS Linck.

Pristis Klein, Neuer Schauplatz, VII, 1779, 403; non-binominal.

Pristis Linck, Mag. Neueste Physik und Naturgeschichte, 1790, 31 (*Squalus pristis* L.).

Pristis Latham, Trans. Linn. Soc. Lond., II, 1794, 276 (*Squalus pristis* L.).

94. *Pristis pectinatus* Latham. Common sawfish; *Pez sierra*.

Tropical Atlantic, north to West Indies and Florida; occasionally at Cape May and Grassy Sound.

Pristis pectinatus Latham, Trans. Linn. Soc. Lond., II, 1794, 278, "in the ocean."

Pristis granulosa Bloch and Schneider, Syst. Ichth., 1801, 352, Habana; after Parra.

Pristis mississippiensis Rafinesque, Ichth. Ohiensis, 1820, 86, lower Mississippi.

Pristis megalodon Duméril, Elasmobranchs, 1870, 476, pl. 9, Cayenne.

Pristis acutirostris Duméril, loc. cit., 479, Martinique.

Pristis occa Duméril, loc. cit., 479, locality unknown.

95. *Pristis zephyreus*¹⁸ Jordan and Starks. *Pez de espada*.

Tropical seas entering rivers, north to Mazatlan on the Pacific coast.

Pristis zephyreus Jordan and Starks, Fishes of Sinaloa, in Proc. Calif. Acad. Sci., V, 1895, 383, Mazatlan, Mexico; regarded by Garman as inseparable from *Pristis microdon* Latham.

Family 23. RHINOBATIDÆ. Guitarfishes

Genus 53. RHINOBATOS Linck. Guitarfishes.

Rhinobatus Klein, Neuer Schauplatz, II, 1776, 593 (*Rhinobatos seu = Squatina raja*; non-binominal).

Rhinobatos Linck, Magazin Neuestes, 1790, 32; type not specified.

Rhinobatus Bloch and Schneider, Syst. Ichth., 1801, 353 (*Rhinobatus rhinobatus*).

Syrrhina Muller and Henle, Plagiostomen, 1838, 113 (*Rhinobatus columna = Rhinobatos rhinobatus*).

Glaucostegus Bonaparte, Catalogo Metodico, 1846, 14 (*Rhinobatus rhinobatus*).

96. *Rhinobatos horkeli* (Müller and Henle).

Brazil north to Windward Islands; St. Eustatius.

Rhinobatus horkeli Müller and Henle, Plagiostomen, 1838, 122, pl. 41.

97. *Rhinobatos lentiginosus* (Garman). *Guitarro*.

Atlantic from Charleston, S. C., to Yucatan.

Rhinobatus lentiginosus Garman, Bull. Mus. Comp. Zool., VI, 1880, 168, coast of Florida.

98. *Rhinobatos percellens* (Walbaum). *Fiddlerfish*; *Puraque*.

West Indies to Jamaica and southern Brazil.

Raja percellens Walbaum, Artedi Pisc., 1792, 525, Brazil; after *Puraque* Marcgrave.

Rhinobatus electricus Bloch and Schneider, Syst. Ichth., 1801, 356, Brazil.

Rhinobatus undulatus Ölfers, Torpedo, 1831, 22, Brazil.

Rhinobatus glaucostictus Ölfers, loc. cit., 1831, 22, Brazil.

Rhinobatus marcgravi Henle, Ueber Narcine, 1834, 34, Brazil.

99. *Rhinobatos stellio* (Jordan and Rutter).

West Indies.

Rhinobatus stellio Jordan and Rutter, Proc., Acad. Nat. Sci. Phila., XLIX, 1897, 91, Kingston, Jamaica.

¹⁸ The African species, *P. perroteti* Valenciennes, probably does not occur in America.

100. *Rhinobatos spinosus* (Günther).
Mexico.
Rhinobatos spinosus Günther, Cat., VIII, 1870, 518, Mexico.
101. *Rhinobatos productus* (Ayres). *Guitarfish*.
San Francisco to San Diego.
Rhinobatos producta Ayres, in Girard, Proc., Acad. Nat. Sci. Phila., VII, 1854, 196, Presidio of Monterey, Calif.
102. *Rhinobatos glaucostigma* (Jordan and Gilbert). *Guitarro*.
Gulf of California and southward.
Rhinobatos glaucostigma Jordan and Gilbert, Proc. U. S. Nat. Mus., VI, 1883, 210, Mazatlan.
103. *Rhinobatos leucorhynchus* (Günther).
Panama and vicinity.
Rhinobatos leucorhynchus Günther, Proc. Zool. Soc. Lond., 1866, 604, Panama.
- Genus 54. **ZAPTERYX** Jordan and Gilbert.
Zapteryx Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 53 (*Platyrrhina exasperata* Jordan and Gilbert).
104. *Zapteryx exasperatus* (Jordan and Gilbert).
San Diego Bay; abundant.
Platyrrhina exasperata Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 32, San Diego.
Trigonorrhina alveata Garman, Bull. Mus. Comp. Zool., VI, 1880, 169, San Diego.
105. *Zapteryx xyster* Jordan and Evermann.
Panama.
Zapteryx xyster Jordan and Evermann, Fishes North and Mid. Amer., 1896, 65, Panama.

Family 24. PLATYRRHINIDÆ

- Genus 55. **PLATYRRHINOIDIS** Garman.
Platyrrhinoidis Garman, Proc. U. S. Nat. Mus., III, 1880, 522 (*Platyrrhina triseriata* Jordan and Gilbert).
106. *Platyrrhinoidis triseriatus* (Jordan and Gilbert).
Coast of California, from Point Conception southward.
Platyrrhina triseriata Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 36, Santa Barbara, Calif.

Family 25. RAJIDÆ. Skates and rays

- Genus 56. **RAJA** Linnæus.
Raja (Artedi) Linnæus, Syst. Nat., ed. X, 1758, 231 (*Raja batis* Linnæus).
Dipturus Rafinesque, Caratteri, 1810, 16 (*Raja batis* L.).
Platopterus Rafinesque, Anal. Nat. 1815, 93 (*Raja batis* L.).
Dasybatus Blainville, Jour. Phys. 1816, 260 (*communis*).
Propterygia Otto, Nova Acta Acad. Cæs. Leop. Carol. Nat. Curios., 1824, 777 (*hyposticta*; monstrous example with fins not adnate to head).
Lævira Bonaparte, Faun. Ital., XXV, 1839, 130 (*oxyrhynchus*).
Hieroptera Fleming, Edinburgh New Philos. Jour., XXVI, 1841, 236 (*H. abredonensis* Flem. = *R. clavata* L.).
Batis Bonaparte, Cat. Metod., 1846, 12 (*radula*; no description).
Raia of various authors; merely change of spelling.
Amblyraja Malm, Göteborg og Bohuslän's Fauna, 1877, 607 (*Raia circularis* Malm = *Raia radiata* Donovan).
Lencoraja Malm, loc. cit., 609 (*Raja fullonica* L.).
Alpharaca Leigh-Sharpe,⁴ Jour. Morph., XXXIX, 1924, 568 (*Raja circularis* Couch).

⁴ Mr. Leigh-Sharpe (Jour. Morphology, XXXIX, December, 1924) divides the genus *Raja* into nine "pseudogenera" on the morphology of the genital organs. To settle the question of the standing of pseudogenera, Jordan (in Copeia, 1925) accepts all as subgenera. Most of those not named above (*Epsilon-raia*, *Zedra*, *Etaria*, *Thetaria*, and *Iotaria*), outside of our limits, may prove valid genera.

- Betaraia* Leigh-Sharpe, loc. cit., 568 (*Raja clavata* Linnaeus, a synonym of *Heiroptera* Fleming).
- Gammaraia* Leigh-Sharpe, loc. cit., 568 (*Raja batis* Linnaeus, a synonym of *Raja* Linnaeus).
- Deltaraia* Leigh-Sharpe, loc. cit., 568 (*Raja radiata* Linnaeus, a synonym of *Amblyraja* Malm).
107. *Raja laevis* Mitchill. *Barndoor skate; Winter skate; Peck-nosed skate.*
Massachusetts to Florida, common northward.
Raja laevis Mitchill, Amer. Month. Mag., II, 1817, 327, New York; name perhaps preoccupied by eligible authors (Gronow, 1763; Valmont, 1765; Duhamel, 1782).
Raja stabuliformis Garman, Plagiostomia, Mem. Mus. Comp. Zool., XXXVI, 1913, 341, Pl. XXII, fig. 2, Pl. XLIV, figs. 4-6, New England coast (substitute for *laevis*, regarded as preoccupied, a matter to be questioned).
108. *Raja radiata* Donovan.
Northern Iceland, southward on both coasts.
Raja radiata Donovan, Hist. Brit. Fish., V, 1820, pl. 114, Great Britain.
109. *Raja scabrata* Garman.
Raja scabrata Garman, Plagiostomia, Mem. Mus. Comp. Zool., XXXVI, 1913, 340, pl. 21, pl. 44, figs. 1-3, Massachusetts Bay. Long confused with *Raja radiata*.
110. *Raja granulata* Gill.
Banks of Newfoundland.
Raja granulata Gill, in Goode and Bean, Bull. Essex Inst., XI, 1879, 28, La Have Bank.
111. *Raja fyllæ* Lütken.
Davis Straits, Greenland.
Raja fyllæ Lütken, Vid. Medd. Naturh. Foren. Kjøbenhavn, 1887, 1, pl. 1, Davis Straits.
112. *Raja eglanteria* Bosc. *Skate; Brier ray; Possum ray; Sea possum; Bob-tailed skate; Clear-nosed skate; Summer skate.*
Cape Cod, southward to Florida; rather common.
Raja eglanteria Bosc, in Lacépède, Hist. Nat. Poiss., II, 1800, 104, Charleston, S. C.
Raja desmarestia LeSueur, Jour. Acad. Nat. Sci. Phila., IV, 1824, 100, Florida.
Raja chantenay LeSueur, loc. cit., 106, America.
Raja americana DeKay, N. Y. Fauna: Fishes, 1842, 368, pl. 66, fig. 215, Staten Island.
113. *Raja erinacea* Mitchill. *Hedgehog ray; Common skate; Little skate; Tobacco; Prickly skate; Summer skate.*
Nova Scotia to the Carolinas; very abundant from Virginia to Maine.
Raja erinacea Mitchill, Amer. Jour. Sci. Arts, IX, 1825, 290, pl. 6, New York.
114. *Raja diaphanes* Mitchill. *Clear ray.*
East Coast of United States.
Raja ocellata Mitchill, Trans. Lit. Phil. Soc. N. Y., 1, 1803, 877, New York; not of Russell.
Raja diaphanes Mitchill, loc. cit., 478, New York.
115. *Raja senta* Garman.
Banks of Newfoundland to Cape Cod; in deep water.
Raja senta Garman, Proc. U. S. Nat. Mus., VIII, 1885, 43, Cape Cod Bay; La Have Bank.
116. *Raja microtrachys* Osburn and Nichols.
Off west coast of Lower California.
Raja microtrachys Osburn and Nichols, Bull. Amer. Mus. Nat. Hist., XXXV, 1917, 142, fig. 1, off Guadalupe Island in deep water.
117. *Raja ackleyi* Garman.
Yucatan Banks
Raja ackleyi Garman, Bull. Mus. Comp. Zool., VIII, 1881, 234, Yucatan Banks.

118. *Raja ornata* Garman.
Coast of South Carolina and Florida.
Raja ornata Garman, Bull. Mus. Comp. Zool., VIII, 1881, 235, off South Carolina.
119. *Raja plutonia* Garman.
Deep water off South Carolina.
Raja plutonia Garman, Bull. Mus. Comp. Zool., VIII, 1881, 236, off South Carolina.
120. *Raja rhina* Jordan and Gilbert.
Monterey to Alaska; not rare.
Raja rhina Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 251, Monterey; San Francisco.
121. *Raja parmifera* Bean.
Common on coast of Alaska; Bristol Bay.
Raja parmifera Bean, Proc. U. S. Nat. Mus., IV, 1881, 157, Unalaska.
122. *Raja aleutica* Gilbert.
Unalaska, Aleutian Islands.
Raja aleutica Gilbert, Rept. U. S. Fish Com., XIX, 1893 (1895), 397, pl. 21, Sannak Pass, Aleutian Islands, in 81 fathoms.
123. *Raja rosispinis* Gill and Townsend.
Bering Sea.
Raja rosispinis Gill and Townsend, Proc. Biol. Soc. Wash., XI, 1897, 231, Bering Sea.
Raja obtusa Gill and Townsend, loc. cit., 231, Bering Sea.
124. *Raja interrupta* Gill and Townsend.
Raja interrupta Gill and Townsend, Proc. Biol. Soc. Wash., XI, 1897, 232, Bering Sea.
125. *Raja binoculata* Girard. *Big skate of California.*
Pacific coast; abundant from Monterey to Sitka.
Raja binoculata Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 196, San Francisco.
Raja coopers Girard, Pac. R. R. Surv., X, Pt. 4, Fishes, 1858, 372, Shoalwater Bay, Wash.
126. *Raja stellulata* Jordan and Gilbert.
Coast of California and northward to Unalaska
Raja stellulata Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 133, Monterey Bay.
127. *Raja inornata* Jordan and Gilbert. *Common skate (California.)*
Coast of California; very abundant from San Diego to Cape Mendocino.
Raja inornata Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 457, San Francisco.
Raja jordani Garman, loc. cit., VIII, 1885, 43, San Francisco.
Raja inornata inermis Jordan and Gilbert, loc. cit., IV, 1881, 74, Santa Barbara.
128. *Raja montereyensis* Gilbert.
Monterey Bay.
Raja montereyensis Gilbert, Proc., U. S. Nat. Mus., XLVIII, 1915, 307, Monterey Bay off Santa Cruz, Calif., in 26 to 28 fathoms
129. *Raja equatorialis* Jordan and Bollman.
West coast of Colombia, between Panama and Galapagos Islands.
Raja equatorialis Jordan and Bollman, Proc. U. S. Nat. Mus., XII, 1889, 150, off Colombia.
130. *Raja trachura* Gilbert.
Santa Barbara Islands; south of Shumagin Islands, Central Alaska.
Raja trachura Gilbert, Proc. U. S. Nat. Mus., XIV, 1891, 539, off Santa Barbara, at Albatross station 2923 in 822 fathoms.
131. *Raja abyssicola* Gilbert.
Queen Charlotte Island, British Columbia, in deep water.
Raja abyssicola Gilbert, Rept. U. S. Fish Com., XIX, 1893 (1895), 396, pl. 20, off Queen Charlotte Island, at Albatross station 3342 in 1,588 fathoms.

Genus 57. DACTYLOBATUS Bean and Weed.

Dactylobatus Bean and Weed, Proc. U. S. Nat. Mus., XXVI, 1909, 459
(*D. armatus* Bean and Weed).

132. Dactylobatus armatus Bean and Weed.

Deep water off South Carolina.

Dactylobatus armatus Bean and Weed, Proc. U. S. Nat. Mus., XXXVI,
1911, 459, off Charleston in 270 fathoms.

Suborder NARCACIONTES**Family 26. TORPEDINIDÆ. Electric rays****Genus 58. TETRANARCE**¹⁵ Gill. *Great torpedo*.

Tetranarce Gill, Ann. Lyc. Nat. Hist. N. Y., VII, 1862, 387 (*Torpedo*
occidentalis Storer); misprinted *Tetronarce*.

Gymnotorpedo Fritsch, Arch. Anal. Phys., 1886, 365 (*Torpedo occidentalis*
Storer).

133. Tetranarce occidentalis (Storer). *Electricfish; Crampfish; Torpedo; Numbfish.*

Atlantic coast of United States, Cape Cod to Cuba; not very common.

Torpedo occidentalis Storer, Amer. Jour. Sci. Arts, XLV, 1843, 165,
pl. 3, Massachusetts. Garman regards this species as inseparable
from *Torpedo nobiliana* Bonaparte of the Mediterranean.

134. Tetranarce californica (Ayres). *California torpedo; Crampfish.*

Coast of California; not recorded from south of Monterey; recently
reported from Cape Flattery, Wash.

Torpedo californica Ayres, Proc. Calif. Acad. Nat. Sci., I, 1855, 74,
San Francisco.

Genus 59. NARCINE Henle.

Narcine Henle, Ueber *Narcine*, 1834, 31 (*Torpedo brasiliensis* von
Ölfers).

Syraxaxis Jourdain, in Bonaparte, Fauna Italica, fasc. 160, 1841 (*Narcine*
indica Henle).

Cyclonarce Gill, Ann. Lyc. Nat. Hist. N. Y., VII, 1861, 387 (*Rana*
timlei Schneider).

Gonionarce Gill, loc. cit., 387 (*Narcine indica* Henle).

135. Narcine brasiliensis (Ölfers). *Torpedofish; Small electric ray; Trembler.*

West Indies and Brazil, occasionally northward to Key West and the
coast of North Carolina.

Torpedo brasiliensis von Ölfers, *Torpedo*, 1831, 19, tab. 2, fig. 4, Brazil.
Torpedo bancrofti Griffith, Anim. King., X, 1834, 649, Pl. XXXIV,
Jamaica.

Narcine nigra Duméril, Revue Zool., 272, 1852, Brazil.
Torpedo pictus Gronow, Cat. Fishes, 13, 1854, Antilles.

Narcine brasiliensis corallina Garman, Bull. Mus. Comp. Zool., VIII,
1881, 234, Florida.

Narcine umbrosa Jordan, Proc. U. S. Nat. Mus., VII, 1884, 105, Key
West.

136. Narcine entemedor Jordan and Starks. *Entemedor.*

Pacific coast of tropical America; Mazatlan, La Paz, Panama.

Narcine entemedor Jordan and Starks, Fishes of Sinaloa, Proc. Calif.
Acad. Sci., V, 1895, 387, Mazatlan, Mexico.

Genus 60. DISCOPYGE Heckel.

Discopyge Heckel, in Tschudi, Fauna Peruana, 1846, 32 (*D. tschudii*
Tschudi).

137. Discopyge ommata Jordan and Gilbert.

Panama; rare.

Discopyge ommata Jordan and Gilbert, Proc. U. S. Nat. Mus., XII,
1889, 151, Panama.

¹⁵ In the Old World genus *Torpedo* Forskål, as then understood, the spiracles are provided with a fringe of filaments, at least in joints. In *Tetranarce* these are absent. The following is the synonymy of *Torpedo*: *Torpedo* Forskål, Fauna Arabica, 1775, 16, in part (*Raja torpedo* L., confused with *Malaepterurus electricus*, the electric catfish of the Nile).

Narcacion Klein, Neuer Schauplatz, IV, 1777, 726, nonbinomial (*Raja torpedo* L.).
Fmbrictorpedo Fritsch, loc. cit., 365 (*Torpedo marmorata* Risso = *Raja torpedo* L.).

Suborder MASTICURA. Whip-tailed rays

Family 27. DASYATIDÆ. Stingrays

Genus 61. PASTINACHUS Rüppell.

Pastinachus Rüppell, Atlas, Reise Nord Africa, 1828, 82 (*Raja sephen* Forskål); tail rounded above, with a keel below.

Hypolophus Müller and Henle, Plagiostomen, 1838, 170 (*Raja sephen* Forskål).

138. *Pastinachus centrourus* (Mitchill). *Stingaree*; *Stingray*; *Devilfish*; *Pigeon stingray*; *Clam-cracker*.

Coast of Maine to Cape Hatteras, abundant; the same or a related species in the Mediterranean.

Raja centroura Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 479, New York.

139. *Pastinachus schmardæ* (Werner).

West Indies.

Dasyatis schmardæ Werner, Zool. Jahrb., XXI, 1904, 298, Jamaica.

140. *Pastinachus torrei* (Garman). *Sabina*; *Lebisa*.

West Indies.

Dasyatis torrei Garman, Plagiostomia, Mem. Mus. Comp. Zool., XXXVI, 1913, 386, Tunas de Zaza, Cuba.

Genus 62. DASYATIS Rafinesque. *Stingrays*

Dasybatus Klein, Neuer Schauplatz, I, 1775, 191; not binomial.

Dasyatis Rafinesque, Caratteri, 1810, 16 (*Dasyatis ujo* Rafinesque = *Raja pastinaca* L.).

Uroxis Rafinesque, Indice, 1810, 61 (*U. ujo* Rafinesque).

Trigonobatus Blainville, Jour. Phys., 1816, 261 (*T. vulgaris* Blainville = *Pastinaca* L.).

Trygon Adanson, in Cuvier, Règne Anim., ed. I, 1817, 135 (*Raja pastinaca* L.).

Pastinaca Swainson, Class. Anim., 1839, 319 (*Pastinaca olivacea* Swainson).

Pastinaca DeKay, N. Y. Fauna: Fishes, 1842, 372 (*Raja pastinaca* L.).

Dasibatis Garman, corrected spelling.

141. *Dasyatis longus* (Garman).

Gulf of California to Panama: Galapagos.

Trygon longa Garman, Bull. Mus. Comp. Zool., VI, 1880, 170, Acapulco, Mexico.

142. *Dasyatis hastatus* (DeKay). *Whip stingray*; *Kit*; *Stingaree*.

West Indies to Brazil, north to Florida, North Carolina and Rhode Island.

Pastinaca hastata DeKay, N. Y. Fauna: Fishes, 1842, 373, pl. 65, fig. 214, Rhode Island.

143. *Dasyatis guttatus* (Schneider).

Surinam to Brazil; recorded from Granada.

Raja guttata Schneider, Syst. Ichth., 1801, 361, no locality given.

Trygon gymnura J. Müller, in Erdmann's Reise um die Erde, 1830, 25, taf. 13, Brazil.

Raja tuberculata Lacépède, Hist. Nat. Poiss., II, 1800, 106, pl. 4, fig. 1, Cayenne; not of Bonnatere.

Genus 63. AMPHOTISTIUS Garman.

Amphotistius Garman, Plagiostomia, Mem. Mus. Comp. Zool., 1913, 375 (*Trygon sinensis* Steindachner); tail with a distinct fold above and below.

144. *Amphotistius say* (LeSueur). *Southern stingray*.

New Jersey to Brazil, common in Florida; occasionally northward to New York.

Raja say LeSueur, Jour. Acad. Nat. Sci. Phila., I, 1817, 42, New Jersey.

145. *Amphotistius sabinus* (LeSueur).
Streams and estuaries of Florida; abundant on both coasts.
Trygon sabina LeSueur, Jour. Acad. Nat. Sci. Phila., IV, 1824, 109, Florida.
Trygon osteosticta Müller, in Erdmann's Reise um die Erde, 1830, 25, pl. 14, Brazil.
146. *Amphotistius dipterurus* (Jordan and Gilbert).
Bay of San Diego and southward; locally abundant.
Dasybatis dipterurus Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 31, San Diego; identified by Garman with *Dasyatis brevis* Garman, from Peru.
- Genus 64. **PTEROPLATEA** Müller and Henle.
Pteroplatea Müller and Henle, Plagiostomen, 1838, 168 (*Raja altavela* L.)
147. *Pteroplatea altavela* (Linnæus)
Tropical Atlantic, occasionally northward to Mediterranean and in Gulf Stream; Beaufort, N. C.; Woods Hole, Mass.; taken at Penzance Point in Buzzards Bay (Nichols).
Raja altavela Linnæus, Syst. Nat., ed. X, 1758, 232, no locality.
Dasyatis atavilla Rafinesque, Indice, 1810, 49, Sicily.
Pteroplatea canariensis Valenciennes, Ichth. Canaries, 1843, 100, pl. 23, fig. 9, Canary Islands.
Pteroplatea valenciennesi A. Duméril, Elasmobranches, 1865, 612, no locality.
Pteroplatea vaillanti Rochebrune, Bull. Sci. Philom., IV, 1880, 159, no locality.
148. *Pteroplatea micrura* (Schneider). *Butterfly ray*.
Rhode Island to Brazil.
Raja micrura Schneider, Syst. Ichth., 1801, 360, Surinam.
Raja macrura LeSueur, Jour. Acad. Nat. Sci. Phila., I, 1817, 41, Rhode Island.
149. *Pteroplatea marmorata* Cooper.
Coast of California, from Point Conception southward to Cedros Island; common.
Pteroplatea marmorata Cooper, Proc. Calif. Acad. Nat. Sci., III, 1863, 112, fig. 25, San Diego.
150. *Pteroplatea crebripunctata* Peters. *Manta rara colorado*; *Manta rara*.
Gulf of California, southward along the west coast of Mexico; common.
Pteroplatea crebripunctata Peters, Monatsber. Akad. Wiss. Berlin, 1869, 703, Mazatlan.
Pteroplatea rara Jordan and Starks, in Jordan, Fishes of Sinaloa, Proc. Calif. Acad. Sci., Ser. 2, V, 1895, 390, Mazatlan, Mexico.
- Genus 65. **UROBATUS** Garman.
Urobatis Garman, Plagiostomia, Mem. Mus. Comp. Zool., XXXVI, 1913, 401 (*Leobatus sloani* Blainville).
151. *Urobatis sloani* (Blainville). *Maid*.
West Indies, generally common; occasionally northward; once (perhaps doubtfully) recorded from New Jersey.
Leobatus sloani Blainville, Bull. Sci. Philom., 1816, 121, Jamaica; after *Pastinaca marina* Sloan.
Raja jamaicensis Cuvier, Règne Anim., ed. I, 1817, 137, Jamaica.
Trygonobatus torpedinus Desmarest, Prem. Dec. Ichth., I, 1823, 6, Cuba.
152. *Urobatis vermiculatus* (Garman).
West Indies.
Urobatis sloani vermiculatus Garman, Plagiostomia, Mem. Mus. Comp. Zool., XXXVI, 1913, 802, Progreso, Yucatan.
153. *Urobatis halleri* (Cooper). *Round stingray*.
Coast of California, from Point Conception southward.
Urolophus halleri Cooper, Proc. Calif. Acad. Nat. Sci., III, 1863, 95, San Diego.

154. *Urobatis umbrifer* (Jordan and Starks).
West coast of Mexico.
Urolophus umbrifer Jordan and Starks, in Jordan, Fishes Sinaloa, Proc. Calif. Acad. Sci., Ser. 2, V, 1895, 389, Mazatlan, Mexico; regarded by Garman as inseparable from *Urobatis halleri*.
155. *Urobatis nebulosus* (Garman).
Gulf of California to Panama.
Urolophus nebulosus Garman, Proc. U. S. Nat. Mus., VIII, 1885, 41, Colima, Mexico.
156. *Urobatis concentricus* Osburn and Nichols.
Gulf of California.
Urobatis concentricus Osburn and Nichols, Bull. Amer. Mus. Nat. Hist., XXXV, 1916, 144, fig. 2, Esteban Island, Gulf of California.
- Genus 66. *UROTRYGON* Gill.
Urotrygon Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 173 (*Urotrygon mundus* Gill).
157. *Urotrygon mundus* Gill.
West coast of Mexico.
Urotrygon mundus Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 173, Panama.
Urolophus asterias Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 579, Mazatlan; Panama.
Urolophus rogersi Jordan and Starks, in Jordan, Fishes of Sinaloa, Proc. Calif. Acad. Sci., Ser. 2, V, 1895, 388, Mazatlan.
158. *Urotrygon goodei* (Jordan and Bollman).
Panama and vicinity.
Urolophus goodei Jordan and Bollman, Proc. U. S. Nat. Mus., XII, 1889, 151, near Panama.
159. *Urotrygon aspidurus* (Jordan and Gilbert).
Panama.
Urolophus aspidurus Jordan and Gilbert, Bull. U. S. Fish Com., IV, 1881, 307, Panama.

Family 28. AETOBATIDÆ. Eagle rays

- Genus 67. *STOASODON* Cantor.
Aetobatis Müller and Henle, Plagiostomen, 1841, 180 (*Raia narinari* Euphrasen); not *Aetobatus* Blainville.
Stoasodon Cantor, Cat. Malayan Fishes, 1850, 434 (*Raia narinari* Euphrasen).
Goniobatis Agassiz, Proc. Bost. Soc. Nat. Hist., VI, 1859, 385 (*flagellum*).
160. *Stoasodon narinari* (Euphrasen). *Spotted stingray*; *Bishop ray*; *Obispo*; *Lady ray*.
Tropical seas; north on the Atlantic coast to Virginia; Pacific coast, Gulf of California to Panama.
Raia narinari Euphrasen, Vedensk. Akad. Nya Handl., XI, 1790, 217, Brazil.
Raia flagellum Bloch and Schneider, Syst. Ichth., 1801, 361, Coromandel.
Myliobatis eeltenkee Rüppell, Neu. Wirb., 1835, 70, Red Sea.
Goniobatis macroptera McClelland, Calcutta Jour. Nat. Hist., I, 1841, 60, Bengal.
Aetobatus laticeps Gill, Ann. Lyc. Nat. Hist. N. Y., VIII, 1865, 137, California.
- Genus 68. *PTEROMYLÆUS* Garman.
Pteromylæus Garman, Plagiostomia, Mem. Mus. Comp. Zool., XXXVI, 1913, 437 (*Myliobatis asperrimus* Gilbert).
161. *Pteromylæus asperrimus* (Gilbert).
Panama.
Myliobatis asperrimus Gilbert, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2754, Panama.

Genus 69. AETOBATUS ¹⁶ Blainville. *Eagle rays*.

Aetobatus Blainville, Jour. Phys., LXXXIII, 1816, 261 (*Raja aquila* as *Aetobatus vulgaris* Blainville).

Myliobatis Duméril in Cuvier, Règne Anim., ed. I, 1817, 137 (*Raja aquila*).

Holorhinus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 331 (*Rhinoptera vespertilio* Girard = *Myliobatus californicus* Gill).

162. Aetobatus frémouvillii (LeSueur). *Stingaree; Sharp-nosed ray; Long-tailed stingray*.

Cape Cod to Brazil.

Myliobatis fremouvillii LeSueur, Jour. Acad. Nat. Sci. Phila., IV, 1824, 111, Rhode Island.

Myliobatis bispinosus Storer, Proc. Bost. Soc. Nat. Hist., I, 1841, 53, Massachusetts.

Myliobatis acuta Ayres, loc. cit., I, 1842, 65, Brookhaven, Long Island, N. Y.

163. Aetobatus goodiei (Garman).

Central America to Brazil; Rio Grande do Sul.

Myliobatis goodiei Garman, Proc. U. S. Nat. Mus., VIII, 1885, 39, Central America.

164. Aetobatus californicus (Gill). *Califorma stingray; Batfish*.

California from Cape Medocino southward.

Rhinoptera vespertilio Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 137, Tomales Bay; not *Myliobatus vespertilio* Bleeker.

Myliobatis californicus Gill, Ann. Lyc. Nat. Hist. N. Y., VIII, 1865, 137; after Girard.

Family 29. RHINOPTERIDÆ**Genus 70. RHINOPTERA** Kuhl.

Rhinoptera Kuhl in Cuvier, Règne Anim. ed. II, II, 1829, 401 (*Myliobatis marginatus* Geoffroy).

Zygobatis Agassiz, Poiss. Fossiles, III, 1836, 79 (*Z. jussieuvi* Agassiz).

Mylorhina Gill, Ann. Lyc. Nat. Hist. N. Y., VII, 1865, 136 (*Rhinoptera lalandi* Muller and Henle).

Micromesus Gill, loc. cit., 136 (*Rhinoptera adspersa* Muller and Henle).

165. Rhinoptera bonasus Mitchill. *Cowfish; Cow-nosed ray*.

Cape Cod to Florida.

Rhinoptera bonasus Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 479, New York; description inadequate.

Raja quadriloba LeSueur, Jour. Acad. Nat. Sci. Phila., I, 1817, 44, New Jersey.

166. Rhinoptera steindachneri Evermann and Jenkins. *Gablan*.

Gulf of California.

Rhinoptera steindachneri Evermann and Jenkins, Proc. U. S. Nat. Mus., XIV, 1891, 130, pl. 1, fig. 1, Guaymas, Sonora, Mexico.

167. Rhinoptera encenadæ Rosa Smith.

Todos Santos Bay, Lower California.

Rhinoptera encenadæ Rosa Smith, Proc. U. S. Nat. Mus., IX, 1886, 220, Enseñada de Todos Santos, Lower California. Jaw only.

Family 30. MOBULIDÆ. Sea devils**Genus 71. MOBULA** Rafinesque.

Mobula Rafinesque, Indice, 1810, 61 (*M. auriculata* = *Squalus edentulus* Brunnich).

Apterurus Rafinesque, Indice, 1810, 62 (*A. fabroni* Rafinesque).

Cephalopterus Risso, Ichth. Nice, 1810, 14 (*Raja giorna* Lacépède); not of Geoffroy St. Hilaire, 1809, a genus of birds.

Dicerobatus Blainville, Bull. Soc. Philom., 1816, 116 (*Raja mobular* Lacépède).

Pterocephala Swainson, Nat. Hist. Fish., Amphib., etc., II, 1839, 321, (*Raja giorna* Lacépède).

¹⁶ Müller and Henle correctly referred *Aetobatus* Blainville to the type of *Raja aquila*, spelling the name, however, as *Aetobatis*. They then created a new genus, *Aetobatis* for *Raja narinari*, an arrangement without warrant.

168. *Mobula hypostoma* (Bancroft).

Jamaica

Cephalopterus hypostomus Bancroft, Proc. Comm. Zool. Soc., 1830, 134, Jamaica.169. *Mobula ofersi* (Muller and Henle). *Small devilfish.*

Cape Lookout, N. C., to Brazil.

Cephalopterus ofersi Muller and Henle, Abhandl. Akad. Wiss. Berlin, 1834, 311, Brazil; regarded by Garman as identical with *M. thypostoma*.

Genus 72. CERATOBATIS Boulenger.

Ceratobatis Boulenger, Ann. Mag. Nat. Hist., XX, 1897, 227 (*C. robertsi* Boulenger).170. *Ceratobatis robertsi* Boulenger.

Jamaica.

Ceratobatis robertsi Boulenger, Ann. Mag. Nat. Hist., XX, 1897, 227, Jamaica.

Genus 73. MANTA Bancroft.

Manta Bancroft, Zool. Jour., IV, 1828-29, 444 (*Cephalopterus manta* Bancroft=*Raja birostris* Walbaum, 1792).*Ceratoptera* Muller and Henle, Syst. Besch., Plagiostomen, 1838, 186 (*Cephaloptera vampyrus* Mitchill).*Brachioptilon* Newman, Zoologist, 1849, 74 (*B. hamiltoni*).*Diabolichthys* Holmes, Proc. Elliott Soc. Nat. Hist., I, 1856, 39 (*D. ellioti* Holmes).171. *Manta birostris* (Walbaum). *Sea devil; Devilfish; Manta; Blanketfish.*

Tropical waters of America; north to New Jersey and San Diego; not rare on the Florida coast.

Raja birostris Walbaum, Artedi Pisc., 1792, 535, after *Diabolus marinus* Willughby, etc.*Raja manatia* Schneider, Svst. Ichth., 1801, 364, tropical America.*Raja fimbriata* Lacépède, Hist. Nat. Poiss., IV, 1803, 677, Gulf Stream.*Cephalopterus vampyrus* Mitchill, Ann. Lyc. Nat. Hist. N. Y., I, 1823, 23, Delaware Bay.*Cephalopterus giorna* LeSueur, Jour. Acad. Nat. Sci. Phila., IV, 1824, 115, Georgia.*Cephaloptera manta* or *Manta americana* Bancroft, Zool. Jour., IV, 1828, 444, Jamaica.*Cephaloptera johni* Muller and Henle, Syst. Besch. Plagiostomen, 1838, 186, West Indies.*Diabolichthys ellioti* Holmes, Proc. Elliott Soc. Nat. Hist., I, 1856, 39, Charleston, S. C.172. *Manta hamiltoni* (Newman).San Diego; Gulf of California to Panama, not rare; not known to be distinct from *Manta birostris*.*Brachioptilon hamiltoni* Newman, Zoologist, 1849, 74, Gulf of California.

Subclass HOLOCEPHALI. Chimæras

Order I. CHIMÆEROIDEI. Chimæroids

Family 31. CHIMÆRIDÆ. Chimæras

Genus 74. CHIMÆRA Linnæus. *Elephantfishes.**Chimæra* Linnæus, Syst. Nat., ed. X, 1758, 236 (*C. monstrosa* Linnæus).173. *Chimæra monstrosa* Linnæus.

Deep waters of the Atlantic; off Portugal and off the American coast from Cape Cod northward.

Chimæra monstrosa L., Syst. Nat., ed. X, 1758, 236, Atlantic.*Chimæra mediterranea* Risso, Europ. Mérid., III, 1826, 168, Nice.*Chimæra cristata* Faber, Natur. der Fische Islands, 1829, 45, Iceland.*Callorhynchus centrina* and *Callorhynchus atlanticus* Gronow, Cat. Fishes, 15, 16, 1854.

Genus 75. BATHYALOPEX Collett.

Bathyalopez Collett, Arch. Math. Natur., XXXIII, 1901, 125 (*Chimæra mirabilis* Collett).

174. Bathyalopez plumbeus (Gill).

Gulf Stream in deep water.

Chimæra plumbea Gill, Bull. Phil. Soc. Wash., Dec., 1877, 182, La Have Bank, lat. 42° 40' N., long. 63° 23' W., in 350 fathoms.

175. Bathyalopez abbreviatus (Gill).

Chimæra abbreviata Gill, Proc. U. S. Nat. Mus., VI, 1883, 254, at 40° N., long. 67° W., in 1,290 fathoms.

Genus 76. PSYCHICHTHYS Fowler.

Psychichthys Fowler, Proc. Acad. Nat. Sci. Phila., LIX, 1907, 419 (*Hydrolagus waiteri* Fowler).

176. Psychichthys affinis (Capello).

Open sea, from Cape Cod to Portugal.

Chimæra affinis Capello, Jour. Soc. Math., Lisbon, IV, 1868; 314, Portugal in deep water.

Genus 77. HYDROLAGUS Gill.

Hydrolagus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 331 (*Chimæra collei* Lay and Bennett).

177. Hydrolagus collei (Lay and Bennett). *Ratfish; Elephantfish.*

Pacific coast, Monterey to Alaska; abundant in cold water at no great depth.

Chimæra collei Lay and Bennett, Beechey's Voy., Zool., 1839, 71, North Pacific.

Family 32. RHINOCHIMÆRIDÆ**Genus 78. HARRIOTTA** Goode and Bean.

Harriotta Goode and Bean, Proc. U. S. Nat. Mus., XVII, 1895, 471 (*H. raleighana* Goode and Bean).

Antelochimæra Tanaka, Jour. Coll. Sci., Imp. Univ. Tokyo, XXVIII, art. 8, 1909, Japan (*A. chætirhamphus* Tanaka).

178. Harriotta raleighana Goode and Bean.

Deep water off the north Atlantic coast of the United States.

Harriotta raleighana Goode and Bean, Proc. U. S. Nat. Mus., XVII, 1894 (Jan. 26, 1895), 472, pl. 19, Gulf Stream at 39° N., 70° W.

179. Harriotta curtis-jamesi Townsend and Nichols.

Deep water off Lower California.

Harriotta curtis-jamesi Townsend and Nichols, Bull. Amer. Mus. Nat. Hist., LII, 1925, 6, fig. 2, off Lower California, lat. 26°, in 645 fathoms.

Class IV. PISCES. True fishes**Subclass ACTINOPTERI****Order J. GLANIOSTOMI****Family 33. ACIPENSERIDÆ. Sturgeons****Genus 79. ACIPENSER**¹⁷ Linnaeus. *Sturgeons.*

Acipenser Linnaeus, Syst. Nat., ed. X, 1758, 237 (*A. sturio* L.).

Ichthyocolla Geoffroy, Descr. de 719 Plantes, etc., 1767, 399 (presumably *A. huso* L.).

Sterleta Guldenstadt, Nov. Com. Sci. Petropol., XVI, 1772, 533 (*A. ruthenus* L.).

Sturio Rafinesque, Indice, 1810, 41 (*Sturio vulgaris* Rafinesque=*A. sturio* L.).

Sterletus Rafinesque, Ichth. Ohiensis, 1820, 80 (*A. serotinus* Rafinesque=*A. fulvescens* Rafinesque).

¹⁷ This group ultimately may need subdivision into distinct genera, but none of the many proposed is adequately defined.

Helops Brandt and Ratzeburg, Medizinische Zoologie, II, 1833, 3, 349 (*A. stellatus* Pallas = *A. halops* Pallas).
Sterletus Brandt and Ratzeburg, loc. cit., 349 (*A. ruthenus* L.).
Sturio Muller, Anab. Myxinoidea, 1835, 77 (*A. sturio* L.).
Antaceus Heckel and Fitzinger, Ann. Wiener Mus., I, 1836, 293 (*A. schypa* Eichwald).
Lioniscus Heckel and Fitzinger, loc. cit., 370 (*A. glabra* Fitzinger).
Sterletus Bonaparte, Cat. Metod, 1845, 21 (*A. vultharius* L.).
Ellops Gistel, Naturg. Thierreichs, IX, 1848 (*A. helops* Pallas).
Schipa Brandt, Bull. Acad. Sci. Petersb., VII, 1850, 113 (*A. schypa* Eichwald).

180. *Acipenser transmontanus* Richardson. *White sturgeon; Oregon sturgeon; Sacramento sturgeon.*
 Pacific coast of North America, from Monterey to Alaska; once abundant, now nearly extinct; largest of the sturgeons, reaching a weight of 1,000 pounds. A record sturgeon, *Acipenser transmontanus*, taken at Astoria, weighed 1,900 pounds.
Acipenser transmontanus Richardson, Fauna Bor.-Amer., III, 1836, 278, Fort Vancouver.
Acipenser brachyrhynchus Ayres, Proc. Calif. Acad. Nat. Sci., I, 1854, 15, San Francisco.
Acipenser aleutensis Fitzinger and Heckel, Ann. Wien. Mus. Naturg., 1836, Aleutian Islands, after Pallas.
Acipenser caryi Duméril, Nouv. Arch. Mus., III, 1867, 169, San Francisco.
Acipenser ayresi Duméril, loc. cit., 171, San Francisco.
Acipenser putnami Duméril, loc. cit., 178, San Francisco.
181. *Acipenser oxyrhynchus* Mitchill. *Common sturgeon.*
 New York to Carolina, once abundant along the shores; very close to the common sea sturgeon of Europe (*Acipenser sturio* L.), but with fewer lateral plates and rougher ossification; the two perhaps identical.
Acipenser oxyrhynchus Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1814, 462, New York.
Acipenser mitchilli Duméril, Nouv. Arch. Mus., III, 1867, New York.
Acipenser kennicotti Duméril, loc. cit., James River.
Acipenser girardi Duméril, loc. cit., Maryland.
Acipenser macrorhynchus Duméril, loc. cit., New York.
Acipenser milberti Duméril, loc. cit., New York.
Acipenser bairdi Duméril, loc. cit., Maryland.
Acipenser storeri Duméril, loc. cit., Boston.
Acipenser holbrooki Duméril, loc. cit., Charleston.
Acipenser lecontei Duméril, loc. cit., New York.
182. *Acipenser brevirostris* LeSueur. *Short-nosed sturgeon.*
 Cape Cod to Florida.
Acipenser brevirostrum LeSueur, Trans. Amer. Phil. Soc., I, 1818, 290, Atlantic coast.
Acipenser microrhynchus Duméril, Hist. Nat. Poiss., II, 1870, 105 and 164, New York.
Acipenser lesueuri Valenciennes, in Duméril, loc. cit., 105 and 166, Atlas, pl. 16, figs. 1 and 1a, New York.
Acipenser dekayi Duméril, loc. cit., 105 and 168, New York.
183. *Acipenser acutirostris* Ayres. *Green sturgeon.*
 Pacific coast of America, ascending rivers from Monterey northward; not rare.
Acipenser acutirostris Ayres, Proc., Calif. Acad. Nat. Sci., I, 1854, 14, San Francisco.
Acipenser medirostris Ayres, loc. cit., 15, San Francisco.
Acipenser (Antaceus) agassizii Duméril, Nouv. Arch. Mus. Paris, III, 1867, 181, Pl. XI, figs. 2, 2a, 2b, San Francisco.
Acipenser (Antaceus) alexandri Duméril, loc. cit., 183, Pl. XV, figs. 1, 1a, 1b, San Francisco.
Acipenser (Antaceus) oligopeltis Duméril, loc. cit., 184, Pl. XV, figs. 2, 2a, 2b, San Francisco.

184. *Acipenser fulvescens* Rafinesque. *Lake sturgeon; Ohio sturgeon; Red sturgeon.*

- Mississippi Valley, Great Lakes and northward, ascending rivers, but not entering the sea; varying much with age.
Acipenser fulvescens Rafinesque, Amer. Month. Mag., I, August, 1817, 288, Great Lakes.
Acipenser rubicundus LeSueur, Trans. Amer. Phil. Soc., I, 1818, 388, Lakes Ontario, Erie, and all the upper lakes.
Acipenser maculosus LeSueur, loc. cit., 393, Ohio River; young.
Acipenser serotinus Rafinesque, Ichth. Ohiensis, 1820, 80, Ohio River.
Acipenser ohiensis Rafinesque, loc. cit., 81, Ohio River.
Acipenser macrostomus Rafinesque, loc. cit., 81, Ohio River.
Dineclis truncatus Rafinesque, loc. cit., 82; erroneous, based on a drawing by Audubon.
Acipenser rupertianus Richardson, Fauna Bor.-Amer., III, 1836, 311, Albany River, Rupert Land.
Acipenser laevis Agassiz, Lake Superior, 1850, 267; Lake Superior.
Acipenser carbonarius Agassiz, loc. cit., 271, Lake Superior.
Acipenser rhynchæus Agassiz, loc. cit., 276, Lake Superior.
Acipenser liopeltis Gunther, Cat. Fishes, VIII, 1870, 341, Mississippi.
Acipenser (Huso) copei Duméril, Hist. Nat. Poiss., 1870, 105 and 108, supposedly upper Missouri.
Acipenser (Huso) rauchi Duméril, loc. cit., 105 and 118, Osage River, Mo.
Acipenser (Huso) richardsoni Duméril, loc. cit., 105 and 120, upper Mississippi.
Acipenser (Huso) anasimos Duméril, loc. cit., 105 and 122, Missouri River at St. Louis.
Acipenser (Huso) paranasimos Duméril, loc. cit., 105 and 124, Huntsville, Ala.
Acipenser (Huso) anthracinus Duméril, loc. cit., 105 and 126, Lake Erie.
Acipenser (Huso) megalaspis Duméril, loc. cit., 105 and 133, Lake Champlain.
Acipenser (Huso) lamarii Duméril, loc. cit., 105 and 139, Mississippi River or Lake Erie.
Acipenser (Huso) atelaspis Duméril, loc. cit., 105 and 141, Saskatchewan River.
Acipenser (Huso) rafinesquii Duméril, loc. cit., 105 and 143, Ohio River.
Acipenser (Huso) rosarium Duméril, loc. cit., 105 and 152, Atlas, pl. 17, figs. 2 and 2a, upper Mississippi or Lake Erie.
Acipenser (Huso) platyrhinus Duméril, loc. cit., 105 and 154, upper Mississippi or Lake Erie.
Acipenser (Huso) kirilandi Duméril, loc. cit., 105 and 161, Lake Erie.
Acipenser (Huso) neritinius Duméril, loc. cit., 105 and 162, Michigan.
Acipenser (Antaceus) cincinnatus Duméril, loc. cit., 220 and 228, Ohio River.
Acipenser (Antaceus) buffalo Duméril, loc. cit., 220 and 231, Lake Erie, Buffalo.

Genus 80. SCAPHIRHYNCHUS Heckel. *Shovelnose sturgeons.*

- Scaphirhynchus* Heckel, Ann. Wien. Mus. Naturg., I, 1835, 71 (*S. rafinesquii* Heckel = *Acipenser platyrhynchus* Rafinesque); not *Scaphorhynchus* Maximilian, a genus of birds.
Scaphirhynchops Gill, Trans. Amer. Phil. Soc., V, 1863, 12, 178 (*Acipenser platyrhynchus* Rafinesque).

185. *Scaphirhynchus platyrhynchus* (Rafinesque). *Shovelnose sturgeon; Swtichtail; Hackleback; Sand sturgeon.*

- Mississippi Valley; common in the larger streams.
Acipenser platyrhynchus Rafinesque, Ichth. Ohiensis, 1820, 80, Ohio River.

Genus 81. PARASCAPHIRHYNCHUS Forbes and Richardson.

- Parascaphirhynchus* Forbes and Richardson, Bull. Ill. Lab. Nat. Hist., VII, 1905, 38 (*P. albus* Forbes and Richardson).

186. *Parascaphirhynchus albus* Forbes and Richardson. *White shovelnose sturgeon; White sturgeon.*

- Mississippi River; rare.
Parascaphirhynchus albus Forbes and Richardson, Bull. Ill. Lab. Nat. Hist., VII, 1905, 38, Mississippi River at Grafton, Ill.

Order K. SELACHOSTOMI

Family 34. POLYODONTIDÆ. Paddlefishes

Genus 82. POLYODON Lacépède.

- Polyodon* Lacépède, Bull., Soc. Philom., 1797, 49 (*P. folium* Lacépède).
Spathularia Shaw, Gen. Zool., V, 1804, 362 (*S. reticulata*=*Squalus spathula* Walbaum).
Platirostra LeSueur, Jour. Acad. Nat. Sci. Phila., I, 1817 (1818), 228 (*P. edentula*).
Plamirostra Rafinesque, Ichth. Ohiensis, 1820, 83 (*P. edentula*).
Proceros Rafinesque, loc. cit., 87 (*P. maculatus*).

187. *Polyodon spathula* (Walbaum). Paddlefish; Spoonbill cat; Duckbill cat; Spadefish.

- Mississippi Valley and south in the larger streams, reaching a weight of 173 pounds; rare in Lake Erie.
Squalus spathula Walbaum, Artedi Pisc., 1792, 522; after *Spathula* Rosier, Jour. Phys., 1774, 384, pl. 2; no locality given.
Polyodon feuille Lacépède, Hist. Nat. Poiss., I, 1798, 402, locality unknown.
Polyodon folium Bloch and Schneider, Syst. Ichth., 1801, 457; after Lacépède.
Spatularia reticulata Shaw, Gen. Zool., V, 1804, 362, after Lacépède.
Platirostra edentula LeSueur, Jour. Acad. Nat. Sci. Phila., I, 1817, 227, Ohio River.
Acipenser lagenarius Rafinesque, Ichth. Ohiensis, 1820, 86, Ohio River.
Proceros maculatus Rafinesque, loc. cit., 87, Mississippi River at St. Genevieve, Mo.
Proceros vittatus Rafinesque, loc. cit., 1820, 86, 87, Lake Ontario.

Order L. HOLOSTEI

Suborder GINGLYMODI

Family 35. LEPISOSTEIDÆ. Gar pikes

Genus 83. LEPISOSTEUS Lacépède. Gar pikes.

- Lepisosteus* Lacépède, Hist. Nat. Poiss., V, 1803, 331 (*L. gavalis* Lacépède=*Esox osseus* Linnæus).
Sarchirus Rafinesque, Jour. Acad. Nat. Sci. Phila., I, 1818, 419 (*S. vittatus* Rafinesque).
~~*Leptosteus*~~ Agassiz; corrected spelling.
188. *Lepisosteus osseus* (Linnæus). Long-nosed gar; Billfish; Common gar pike; Ohio gar; Ohio garfish; Billy gar.
 Maryland to Florida and Louisiana, in coastwise streams; also (*huronensis*) Great Lakes and the Mississippi Valley; the most abundant of the gars.
Esox osseus Linnæus, Syst. Nat., ed. X, 1758, 313, after Artedi; based on *Acus maxima squamosa viridis*, the green gar fish of Catesby, 1738, pl. 30, Virginia.
Lepisosteus gavalis Lacépède, Hist. Nat. Poiss., V, 1803, 333, "lakes and rivers of both Indies."
Lepisosteus longirostris Rafinesque, Ichth. Ohiensis, 1820, 74, Muskingum River, Ohio; head.
Macrogathus loracatus Gronow, Cat. Fishes, 1854, 148, after Linnæus.
Lepidosteus crassus Cope, Proc. Acad. Nat. Sci. Phila., XVII, 1865, Bombay Hook, Delaware River.
Lepidosteus louisianensis Duméril, Hist. Nat. Poiss., 1870, 343, New Orleans.
Lepisosteus huronensis Richardson, Fauna Bor.-Amer., III, 1836, 237, Penitanguishene, Lake Huron.
 ?*Sarchirus vittatus* Rafinesque, loc. cit., 69, Ohio River; young; not identifiable.
 ?*Sarchirus argenteus* Rafinesque, loc. cit., 86, Ohio River; young; not identifiable.
Lepidosteus semiradiatus Agassiz, Poiss. Fossiles, II, 1836, 2, pl. 2.

- Lepisosteus bison* DeKay, New York Fauna: Fishes, 1842, 271, Buffalo, N. Y.
Lepisosteus lineatus Thompson, Hist. Vermont, 1842, 145, Lake Champlain.
Lepisosteus leptorhynchus Girard, Pac. R. R. Surv., X, pt. 4, Fishes, 1858, 351, Devil River, Tex.
Lepisosteus otarius Cope, Proc. Acad. Nat. Sci. Phila., XVII, 1865, 86 "Platte River near Fort Riley"; but Fort Riley was on the Kansas River.
Lepisosteus mulberti Duméril, Hist. Nat. Poiss., 1870, 323 and 328, New York.
Lepisosteus harlani Duméril, loc. cit., 323 and 329, Wabash River.
Lepisosteus smithi Duméril, loc. cit., 323 and 330, upper Mississippi.
Lepisosteus ayresi Duméril, loc. cit., 323, 331, Wabash River.
Lepisosteus copei Duméril, loc. cit., 323, 332, northern North America.
Lepisosteus lesueurii Duméril, loc. cit., 323, 335, Wabash River.
Lepisosteus elizabeth Duméril, loc. cit., 323, 336, no locality.
Lepisosteus troostii Duméril, loc. cit., 323, 339, United States.
Lepisosteus piquotianus Duméril, loc. cit., 323, 340, Lake Erie.
Lepisosteus thompsoni Duméril, loc. cit., 323, 342, Upper Mississippi.
Lepisosteus lamarr Duméril, loc. cit., 323, 337, northern North America.
? *Lepisosteus clintonii* Duméril, loc. cit., 323, 338, no locality.
Lepisosteus horathi Duméril, loc. cit., 323, 341, northern North America.
- Genus 84. CYLINDROSTEUS Rafinesque.** *Short-nosed gars.*
Cylindrosteus Rafinesque, Ichth. Ohiensis, 1820, 72 (*Lepisosteus platostomus* Rafinesque).
189. *Cylindrosteus platostomus* (Rafinesque).
Mississippi Valley and Great Lakes; common.
Lepisosteus platostomus Rafinesque, Ichth. Ohiensis, 1820, 72, Ohio River.¹⁸
Lepisosteus oxyurus Rafinesque, loc. cit., 73, Ohio River.
Lepisosteus albus Rafinesque, loc. cit., 73, Ohio River.
Lepisosteus grayi, Agassiz, Poiss. Fossiles, II, 1836, 2, Louisiana.
Lepisosteus (Cylindrosteus) ocellatus Winchell, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 183, Huron River, Mich.
Cylindrosteus zadockii Duméril, Hist. Nat. Poiss., II, 1870, 348, 353, Upper Mississippi.
Cylindrosteus rafinesquii Duméril, loc. cit., 348, 352, United States.
190. *Cylindrosteus scabriceps* Fowler.
Lower Missouri River.
Cylindrosteus scabriceps Fowler, Proc. Acad. Nat. Sci. Phila., LXII, 1910, 607, Pl. XXXVIII. figs. 8, 9, Leavenworth, Kans.; a doubtful species.
191. *Cylindrosteus agassizii* Duméril.
Missouri Basin.
Cylindrosteus agassizii Duméril, Hist. Nat. Poiss., II, 1870, 351, St. Louis.
Cylindrosteus productus Cope, Proc. Acad. Nat. Sci. Phila., XVII, 1865, 86, San Antonio, Tex.
192. *Cylindrosteus castelnaudii* Duméril.
Florida and Louisiana.
Cylindrosteus castelnaudii Duméril, Hist. Nat. Poiss., II, 1870, 355, Lake Lafayette, Florida.
Cylindrosteus bartoni Duméril, loc. cit., 356, New Orleans.
Lepisosteus latirostris Girard, Pac. R. R. Surv., X, pl. 4, Fishes, 1858, 352, Rio Pecos, Tex.
193. *Cylindrosteus megalops* Fowler.
Florida.
Cylindrosteus megalops Fowler, Proc. Acad. Nat. Sci. Phila., LXII, 1910, 609, Pl. XXXVIII, figs. 15, 16, Bayport, Fla.; a doubtful species.

¹⁸ Many other tributary streams mentioned.

Genus 85. *ATRACTOSTEUS* Rafinesque. *Alligator gars.*

Litholepis Rafinesque, Amer. Month. Mag., III, 1818, 447 (*L. adam-antinus* Rafinesque), based on a fancy painting by Audubon of an imaginary fish.

Atractosteus Rafinesque, Ichth. Ohiensis, 1820, 72 (*Lepisosteus ferox* Rafinesque).

194. *Atractosteus spatula* (Lacépède). *Mississippi alligator gar.*

Lower Mississippi Valley in the larger streams, reaching a length of 5 feet or more.

Lepisosteus spatula Lacépède, Hist. Nat. Poiss., V, 1803, 333, no locality.

Lepisosteus (Atractosteus) ferox Rafinesque, Ichth. Ohiensis, 1820, 73. Ohio River.

Lepisosteus (Atractosteus) berlandieri Girard, Pac. R. R. Surv., X, pt. 4, Fishes, 1858, 353, Tamaulipas.

Atractosteus lucrus Dumeril, Hist. Nat. Poiss., 1870, 364, Tampico, Mexico.

195. *Atractosteus tristæchus* (Bloch and Schneider). *Cuban alligator gar; Manjuari.*

Rivers of Cuba.

Esox tristæchus Bloch and Schneider, Syst. Ichth., 1801, 395, Cuba, after Manjuari of Para.

Lepisosteus manjuari Poey, Memorias, I, 1860, 273, Cuba.

196. *Atractosteus tropicus* Gill.

Central America; Nicaragua.

Atractosteus tropicus Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 172, streams near Panama.

Order M. **HALECOMORPHI**Family 36 **AMIIDÆ.** BowfinsGenus 86. *AMIA* Linnæus.

Amia Linnæus, Syst. Nat., ed. XII, 1766, 500 (*A. calva*); not of Gronow, 1763, which is a nonbinomial name for *Apogon*.

Amiatus Rafinesque, Anal. Nat., 1815, 88 (*A. calva*); substitute for *Amia* regarded as too short for symmetry.

197. *Amia calva* Linnæus. *Bowfin; John A. Grindley; Mudfish; Lawyer; Poisson de marais; Choupiquel* (Louisiana).

Great Lakes, Mississippi Valley to Virginia, Florida, and Texas, in lakes and sluggish streams.

Amia calva Linnæus, Syst. Nat., ed. XII, 1766, 500, Charleston, S. C.

Amia ocellicauda Richardson, Fauna Bor.-Amer., III, 1836, 236, Lake Huron, male.

Amia occidentalis DeKay, New York Fauna: Fishes, 1842, 269, St. Marys River, Mich.

Amia marmorata Cuvier and Valenciennes, Hist. Nat. Poiss., XIX, 1846, 412, New Orleans.

Amia ornata LeSueur, in Cuvier and Valenciennes, loc. cit., 420, Chibault, Mississippi River.

Amia viridis LeSueur, loc. cit., 421, New Orleans.

Amia canina Cuvier and Valenciennes, loc. cit., 424, Lake Erie; after Kirtland

Amia lentiginosa Cuvier and Valenciennes, loc. cit., 426; after Bonnatte; no locality.

Amia subcærulea Cuvier and Valenciennes, loc. cit., 427, New Orleans.

Amia cinerea Cuvier and Valenciennes, loc. cit., 430, Charleston, S. C.

Amia reticulata LeSueur, loc. cit., 431, Wabash River.

Amia thompsoni Dumeril, loc. cit., II, 1870, 419, Lake Champlain.

Amia piquoti Dumeril, loc. cit., 1870, 423, upper Mississippi.

Superorder TELEOSTEI. Bony fishes

Order N. ISOSPONDYLI (Physostomi; Malacopterygii). Soft-rayed fishes

Suborder ELOPOIDEA

Family 37. ELOPIDÆ. Tenpounders

Genus 87. *ELOPS* Linnæus.*Elops* Linnæus, Syst. Nat., ed. XII, 1766, 518 (*E. saurus*).*Mugilomorus* Lacépède, Hist. Nat. Poiss., V, 1803, 398 (*M. anna-carolina*).*Trichonotus* Rafinesque, Anal. Nat., 1815, 88 (*Mugilomorus anna-carolina*); substitute for *Mugilomorus*, considered objectionable.

198. *Elops saurus* Linnæus. Tenpounder; John Mariggle; Bonyfish; Bonefish; Big-eyed herring; Mataquelo real; Lisa francesa.

Tropical Atlantic; West Indies, north to Long Island; common.

Elops saurus Linnæus, Syst. Nat., ed. XII, 1766, 518, Carolinas.*Argentina carolina* Linnæus, loc. cit., 519, Carolinas.*Mugilomorus anna-carolina* Lacépède, Hist. Nat. Poiss., V, 1803, 398, South Carolina.*Elops inermis* Mitchell, Trans. Lit. Phil. Soc. N. Y., I, 1815, 445, New York.

199. *Elops hawaiiensis* Regan. Awa.

Hawaii and Pacific coast of Mexico north to Gulf of California; Hawaii.

Elops hawaiiensis Regan, Ann. Mag. Nat. Hist., 9th ser., III, 1909, 39, Hawaii.

Family 38. MEGALOPIDÆ. Tarpons

Genus 88. *TARPON* Jordan and Evermann. Grande écaille.*Tarpon* Jordan and Evermann, Fishes North and Mid. Amer., 1896, 409 (*Megalops atlanticus* Cuvier and Valenciennes).

200. *Tarpon atlanticus* (Cuvier and Valenciennes). Tarpon; Tarpum; Grande écaille; Silverfish; Sabalo; Savanilla.

Long Island to Brazil; abundant off Florida, breeding in the West Indies.

Megalops atlanticus Cuvier and Valenciennes, Hist. Nat. Poiss., XIX, 1846, 398, Guadeloupe; San Domingo; Martinique; Porto Rico.*Megalops elongatus* Girard, Proc. Acad. Nat. Sci. Phila., X, 1858, 224, Long Island.

Suborder ALBULOIDEI

Family 39. ALBULIDÆ. Ladyfishes

Genus 89. *ALBULA* (Gronow) Bloch and Schneider. Ladyfishes.*Conorhynchus* Nozeman, Act. Select., III, 1757, 382; non-binomial.*Albula* Gronow, Zoophyl., 1763, 102; non-binomial*Albula* Bloch and Schneider, Syst. Ichth., 1801, 432 (*A. conorhynchus* = *Esox vulpes* L.).*Butyrinus* Lacépède, Hist. Nat. Poiss., V, 1803, 45 (*B. banana* = *Esox vulpes* L.).*Glossodus* Cuvier, in Agassiz, Spix, Pisc. Brasil., 1829, 48 (*A. forskdli* = *Esox vulpes* L.).

201. *Albula vulpes* (Linnæus). Ladyfish; Bonefish; Macabi; Sanducha; Bananafish.

Tropical seas, ranging northward to San Diego; Long Island and southern Japan; perhaps more than one species included.

Unbarana Marcgrave, Hist. Brazil, 1648, Brazil.*Vulpes bahamensis* Catesby, Nat. Hist. Carolinas, etc., 1737, Pl. II, fig. 1, Bahamas; non-binomial.*Esox vulpes* Linnæus, Syst. Nat., ed. X, 1758, 313, Bahamas; based on the bonefish, *Vulpes bahamensis* of Catesby.

- Argentina glossodonta* Forskål, Descr. Anim., 1775, 68, Djidda, Arabia.
Macabi Parra, Diff. Piezas Cuba, 1787, 88, pl. 35, fig. 1, Cuba; based on *Unbarana* of Marcgrave.
Synodus argenteus Bloch and Schneider, Syst. Ichth., 1801, 398, Asia.
Clupea brasiliensis Bloch and Schneider, loc. cit., 427, Brazil.
Albula conorhynchus Bloch and Schneider, loc. cit., 432, Antilles; after Gronow and Plumier; called *Albula plumieri* on plate 86.
Amia immaculata Bloch and Schneider, loc. cit., Central America; after *Macabi* of Parra.
Butyrinus banana Lacépède, Hist. Nat. Poiss., V, 1803, 46, Ile de France.
Clupea macrocephala Lacépède, loc. cit., 426, Martinique; on a drawing by Plumier.
Glossodus forskåli Agassiz, in Spix, Pisc. Brasil., 1829, 49, Bahia; called *Engraulis sexicus* and *Engraulis bahiensis* on plates 22 and 24.
Albula parra Cuvier and Valenciennes, Hist. Nat. Poiss., XIX, 1846, 339, Martinique; Bahia; Rio de Janeiro.
Albula goreensis Cuvier and Valenciennes, loc. cit., 342, Gorea.
Albula neoguinaica Cuvier and Valenciennes, loc. cit., 350, New Guinea.
Albula seminuda Cuvier and Valenciennes, loc. cit., 351, New Guinea.
Albula erythrocheilus Cuvier and Valenciennes, loc. cit., 352, Friendly Islands.
Albula forsteri Cuvier and Valenciennes, loc. cit., 354, Tahiti.
Albula rostrata Gronow, Cat. Fishes, 1854, 189, American Ocean.

Genus 90. DIXONINA Fowler.

Dixonina Fowler, Proc. Acad. Nat. Sci. Phila., LXII, 1910, 651 (*D. nemoptera* Fowler).

202. Dixonina nemoptera Fowler.

San Domingo, West Indies.

Dixonina nemoptera Fowler, Proc. Acad. Nat. Sci. Phila., LXII, 1910, 652, San Domingo.

Suborder CLUPEOIDEI

Family 40. CHANIDÆ. Milkfishes

Genus 91. CHANOS Lacépède.

Chanos Lacépède, Hist. Nat. Poiss., V, 1803, 395 (*C. arabicus*).

Lutodeira Van Hasselt, in Ruppell, Atlas Reise Nord Africa, 1828, 17 (*L. indica* Ruppell = *Mugil chanos* L.)

Ptycholepis Gray, in Dieffenbach's Travels in New Zealand, II, about 1842, 218 (*Mugil salmoneus* Forster).

203. Chanos cyprinella Cuvier and Valenciennes. Milkfish; Sabalo; Awa; Chani; Anged.

Gulf of California to Panama and Hawaii; replaced in the western Pacific by *Chanos chanos* Forskål.

Chanos cyprinella Cuvier and Valenciennes, Hist. Nat. Poiss., XIX, 1846, 194, 198, Hawaiian Islands.

Family 41. HIODONTIDÆ. Mooneyes

Genus 92. HIODON LeSueur. Mooneyes.

Hiodon LeSueur, Jour. Acad. Nat. Sci. Phila., I, 1818, 334 (*H. tergus* LeSueur).

Glossodon Rafinesque, Amer. Month. Mag., II, September, 1818, 354 (*G. harengoides*).

Hyodon, corrected orthography.

204. Hiodon tergus LeSueur. Mooneye; Toothed herring.

Great Lakes and Mississippi Valley, north to Assiniboine River.

Hiodon tergus LeSueur, Jour. Acad. Nat. Sci. Phila., I, 1818, 364, Ohio River.

Glossodon harengoides Rafinesque, Amer. Month. Mag., II, September, 1818, 354, Ohio River.

Glossodon heterurus Rafinesque, loc. cit., 354, Falls of Ohio River.

Hodon clodalis LeSueur, loc. cit., Ohio River at Pittsburgh.

Hyodon vernalis Rafinesque, Ichth. Ohiensis, 1820, 42, Ohio River.

205. *Hiodon selenops* Jordan and Bean. *Southern mooneye*; *Southern toothed herring*.
Tennessee, Cumberland, and Alabama Rivers.
Hyodon selenops Jordan and Bean, Bull. U. S. Nat. Mus., X, 1877, 67, Chattanooga, Tenn.
- Genus 93. AMPHIODON Rafinesque. *Goldeyes*.
Amphiodon Rafinesque, Jour. Phys., Paris, 1819, 421, Ohio River (*A. alosoides*; misprinted *alveoides*).
Elatomastius Gill and Jordan, Bull. U. S. Nat. Mus., X, 1877, 68 (*Hyodon chrysopsis* Richardson = *Amphiodon alosoides* Rafinesque).
206. *Amphiodon alosoides* Rafinesque. *Goldeye*; *La Quesche*; *Naccaysh*.
Ohio River and north to Saskatchewan; abundant and much valued in Manitoba.
Amphiodon alosoides (misprinted *alveoides*) Rafinesque, Jour. Phys., Paris, 1819, 421, Ohio River.
Hyodon amphiodon Rafinesque, Ichth. Ohiensis, 1820, 42, Ohio River near the falls.
Hyodon chrysopsis Richardson, Fauna Bor.-Amer., III, 1836, 232, Cumberland House, Saskatchewan River.
Cyprinus (*Abramis*?) *smithi* Richardson, loc. cit., 110, Richelieu River.

Family 42. CLUPEIDÆ. Herrings

- Genus 94. CLUPEA Linnæus. *Herrings*.
Clupea Linnæus, Syst. Nat., ed. X, 1758, 317 (*C. harengus* L.).
Rogenia Cuvier and Valenciennes, Hist. Nat. Poiss., XX, 1847, 340 (*R. alba*, "the whitebait," the young of *harengus*).
207. *Clupea harengus* Linnæus. *Common herring*.
North Atlantic Ocean, south on our coast to Sandy Hook; Massachusetts; New Hampshire.
Clupea harengus Linnæus, Syst. Nat., ed. X, 1758, 317, seas of Europe.
Clupea membras Pallas, Zoogr. Rosso.-Asiat., III, 1811, 211, Baltic Sea.
Clupea halec Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 451, New York.
Clupea vittata Mitchill, loc. cit., 456, New York.
Clupea cærulea Mitchill, loc. cit., 457, New York.
Clupea elongata LeSueur, Jour. Acad. Nat. Sci. Phila., I, 1817, 234, Massachusetts.
Clupea leachi Yarrell, Zool. Jour., V, 1829, 277, pl. 12, England.
Clupea minima Peck, in Storer, Rept. Fish. Mass., 1839, 113, New Hampshire.
Clupea lineolata Cuvier and Valenciennes, Hist. Nat. Poiss., XX, 1847, 256, locality unknown.
Rogenia alba Cuvier and Valenciennes, loc. cit., 340, England; the young form known as whitebait.
208. *Clupea pallasii* Cuvier and Valenciennes. *California herring*.
Pacific coast, from Kamchatka to San Diego.
Clupea harengus var. *Pallas*, Zoogr. Rosso.-Asiat., III, 1811, 209, Kamchatka.
Clupea pallasii Cuvier and Valenciennes, Hist. Nat. Poiss., XX, 1847, 253, Kamchatka; based on Pallas's specimens.
Clupea mirabilis Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 138, San Francisco.
Spratelloides bryoporus Cope, Proc. Amer. Phil. Soc., XIII, 1873, 25, Sitka; young.
- Genus 95. POMOLOBUS Rafinesque. *Alewives*.
Pomolobus Rafinesque, Ichth. Ohiensis, 38, 1820 (*P. chrysochloris* Rafinesque).
Alausella Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 36 (*Clupea parvula* Mitchill = *Clupea mediocris* Mitchill).
- Subgenus ALAUSSELLA Gill.

209. *Pomolobus pseudoharengus* (Wilson). *Alewife*; *Branch herring*; *Gaspereau*; *Wall-eyed herring*; *Big-eyed herring*; *Sawbelly*; *Ellwife*; *Bang*. Atlantic coast of the United States; Lake Ontario and landlocked in the "Finger Lakes" of New York.
Clupea pseudoharengus Wilson, in Rees's Encycl., IX, about 1811, probably Philadelphia.
Clupea vernalis Mitchill, Rept. Fish. N. Y., 1814, 22, and Trans., Lit. Phil. Soc. N. Y., I, 1815, 454, New York.
Clupea megalops Rafinesque, Amer. Month. Mag., 1818, 206, Delaware River.
Meletta venosa Cuvier and Valenciennes, Hist. Nat. Poiss., XX, 1847, 374, New York.
Pomolobus pseudoharengus lacustris Jordan, Man. Vert., ed. I, 1876, 265, Cayuga Lake, New York; specimens landlocked.
210. *Pomolobus mediocris* (Mitchill). *Hickory shad*; *Hickory jack*; *Fall herring*; *Tailor herring*; *Mattowacca*. Atlantic coast of United States from Maine to Florida.
Clupea mediocris Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 450, New York.
Clupea mattowacca Mitchill, loc. cit., 451, pl. 5, fig. 8, New York.
? *Clupea parvula* Mitchill, loc. cit., 452, New York.
? *Clupea pusilla* Mitchill, loc. cit., 452, New York.
Clupea fasciata LeSueur, Jour. Acad. Nat. Sci. Phila., I, 1818, 233, Massachusetts.
Clupea virescens DeKay, New York Fauna: Fishes, 1842, 242, New York.
Alosa lineata Storer, Proc., Bost. Soc. Nat. Hist., II, 1847, 242, Massachusetts.
211. *Pomolobus æstivalis* (Mitchill). *Glut herring*; *Blueback*; *Black-belly*; *Summer herring*; *Kyack*; *Sawbelly*. Atlantic coast.
Clupea æstivalis Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 456, New York.
Alosa cyanonoton Storer, Hist. Fish. Mass., 1867, 161, Provincetown, Mass.
- Subgenus *POMOLOBUS* Rafinesque.
212. *Pomolobus chrysochloris* Rafinesque. *Skipjack*; *Blue herring*; *Nailrod*. Gulf of Mexico and Mississippi Valley; ascending streams, and introduced through the canals into Lake Erie and Lake Michigan.
Pomolobus chrysochloris Rafinesque, Ichth. Ohiensis, 1820, 38, Ohio River.
Meletta suevii Cuvier and Valenciennes, Hist. Nat. Poiss., XX, 1847, 375, Wabash River.
- Genus 96. *ALOSA* Linck. *Shad*.
Alosa Linck, Mag. Neuestes Phys. Naturgesch., 1790, 35 (scarcely defined; type not specified; *Clupea alosa* L. = *Alosa* Cuvier).
Alosa Cuvier, Règne Anim., ed. II, 1829, 319 (*Clupea alosa* L.).
Alausa Cuvier and Valenciennes, Hist. Nat. Poiss., XX, 1847, 389 (*Clupea alosa* L.).
213. *Alosa sapidissima* (Wilson). *Common shad*; *American shad*; *North River shad*; *Potomac shad*; *Connecticut River shad*. Atlantic coast of United States, from Miramachi River to Florida; from Monterey northward on the Pacific coast, as an introduced species.
Clupea sapidissima Wilson, in Rees's New Cyclopaedia, IXg., neither pagination nor date, but prior to 1812; no locality, but probably Philadelphia.
Clupea indigena Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 454, New York.
Alosa præstabilis DeKay, New York Fauna: Fishes, 1842, 255, pl. 15, fig. 4, New York.
214. *Alosa ohiensis* Evermann. *Ohio shad*. Mississippi River basin; Ohio River.
Alosa ohiensis Evermann, Rept. U. S. Fish Com., XXVII, 1901 (1902), 277, fig. 2, Ohio River at the falls.

215. *Alosa alabamæ* Jordan and Evermann. *Alabama shad*.
Gulf coast of United States; ascending streams.
Alosa alabamæ Jordan and Evermann, Rept. U. S. Fish Com., XXI,
1895 (1896), 203, Black Warrior River, Tuscaloosa, Ala.
- Genus 97. **SARDINIA** Poey. *True sardines*.
Sardinia Poey, Memorias, II, 1861, 311 (*S. pseudohispanica* Poey; not
of Jordan and Evermann, which is *Sardinella anchovia* Cuvier and
Valenciennes).
Sardina Antipa, Denkschr. Akad. Wiss. Wien, LXVIII, 1905 (*Clupea
pilchardus* L.).
216. *Sardinia cærulea* (Girard). *California sardine*.
Pacific coast, from Puget Sound to Magdalena Bay; very abundant.
Meletta cærulea Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 138,
San Francisco.
Alausa californica Gill, loc. cit., XIV, 1862, 281, California.
217. *Sardinia anchovia* (Cuvier and Valenciennes). *Sardinia de España*.
West Indies, north to Cuba.
Sardinella anchovia Cuvier and Valenciennes, Hist. Nat. Poiss., XX,
1847, 269, Rio Janeiro; Martinique.
*Sardina*¹⁹ *pseudohispanica* Poey, Memorias, II, 1861, 311, Cuba.
- Genus 98. **SARDINELLA** Cuvier and Valenciennes. *Smooth-headed sardines*.
Sardinella Cuvier and Valenciennes, Hist. Nat. Poiss., XX, 1847, 261,
(*S. aurita* Cuvier and Valenciennes).
218. *Sardinella aurita* Cuvier and Valenciennes. *Smooth sardine; Sardina
de España*.
Woods Hole to Florida; recorded from France; usually in rather deep
water.
Sardinella aurita Cuvier and Valenciennes, Hist. Nat. Poiss., XX,
1847, 261, coast of France.
- Genus 99. **HARENGULA** Cuvier and Valenciennes. *Scaled sardines*.
Harengula Cuvier and Valenciennes, Hist. Nat. Poiss., XX, 1847, 280
(*H. latula* Cuvier and Valenciennes).
219. *Harengula sardina* Poey. *Sardina de Ley*.
West Indian fauna, north to Key West.
Harengula sardina Poey, Memorias, II, 1860, 310, Cuba.
Harengula callolepis Goode, Proc. U. S. Nat. Mus., II, 1879, 152,
Bermuda.
220. *Harengula macrophthalmus* (Ranzani). *Sardina Escamuda; White-bill;
Pinceo*.
West Indies, Florida to Brazil.
Clupea macrophthalma Ranzani, Nov. Com. Acad. Sci. Bonon., V, 1842,
320, Brazil.
Harengula humeralis Cuvier and Valenciennes, Hist. Nat. Poiss., XX,
1847, 293, Rio Janeiro; Bahia; Guadeloupe; San Domingo.
Alausa striata Cuvier and Valenciennes, loc. cit; XX, 1847, 429,
Guadeloupe; Bahia.
Alosa bishopi Müller and Troschel, in Schomburgk, Hist. Barbados,
1848, 675, Barbados.
221. *Harengula clupeiola* Cuvier and Valenciennes. *Cailleu*.
West Indies.
Harengula clupeiola Cuvier and Valenciennes, Hist. Nat. Poiss., XX,
1847, 289, Guadeloupe Island, West Indies.
222. *Harengula maculosa* Cuvier and Valenciennes.
West Indies.
Harengula maculosa Cuvier and Valenciennes, Hist. Nat. Poiss., XX,
1847, 292, Martinique.
Alosa apicalis Müller and Troschel, in Schomburgk, Hist. Barbados,
1848, 675, Barbados.

¹⁹ Recent examination of Poey's type by Alvin Seale shows that this fish is a *Sardinia* apparently identical with *Clupea anchovia* Cuvier and Valenciennes, not the *Sardinella pseudohispanica* of Jordan and Evermann, which apparently is the same as *Sardinella aurita* Cuvier and Valenciennes.

223. *Harengula pensacolæ* Goode and Bean.
Florida.
Harengula pensacolæ Goode and Bean, Proc. U. S. Nat. Mus., II, 1879,
152, Pensacola, Fla.
224. *Harengula thrissina* (Jordan and Gilbert).
Gulf of California.
Clupea thrissina Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882,
353, Cape San Lucas.
- Genus 100. *LILE* Jordan and Evermann.
Lile Jordan and Evermann, Fishes North and Mid. Amer., 1896, 431
(*Clupea stoliifera* Jordan and Gilbert).
225. *Lile stoliifera* (Jordan and Gilbert).
Gulf of California to Panama; Mazatlan, Mexico.
Clupea stoliifera Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881,
339, Mazatlan.
- Genus 101. *OPISTHONEMA* Gill. *Thread herring*
Opisthonema Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 37 (*Clupea*
thrissa Broussonet = *Megalops oghina* LeSueur); not of Osbeck.
226. *Opisthonema oglinum* (LeSueur). *Thread herring; Machuelo; Cailleu*
tassart; Sprat.
West Indies, ranging regularly north to Florida and Carolina; Longport,
N. J.; Newport, R. I.; Fortress Monroe.
Clupea thrissa Broussonet, Ichthyologie, fasc. I, 1782, Carolina; Jamaica;
not of Osbeck, 1757, which is a Chinese species of *Clupanodon*.
Megalops oghina LeSueur, Jour. Acad. Nat. Sci. Phila., I, 1817, 359,
Newport, R. I.
Megalops notata LeSueur, loc. cit., 359, Guadeloupe.
Chatoessus signifer DeKay, N. Y. Fauna: Fishes, 1842, 264, New York.
Chatoessus eumorphus Gosse, Naturalist's Sojourn in Jamaica, 1851,
290, Jamaica.
227. *Opisthonema libertate* (Günther). *Sardina machete*.
Pacific coast of Mexico and Central America.
Meletta libertate Günther, Proc. Zool. Soc. Lond., 1866, 603, Libertad,
Central America.
- Genus 102. *BREVOORTIA* Gill. *Menhadens*.
Brevoortia Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 37 (*Alosa*
menhaden Storer = *Clupea tyrannus* Latrobe).
228. *Brevoortia tyrannus* (Latrobe). *Menhaden; Mossbunker; Bonyfish;*
Whitefish; Bugfish; Fatback; Pogy.
Nova Scotia to West Indies; abundant.
Clupea tyrannus Latrobe, Trans. Amer. Phil. Soc. Phila., V, 1802, 77,
pl. I, Chesapeake Bay.
Clupea menhaden Mitchell, Trans. Lit. Phil. Soc. N. Y., I, 1815, 453,
New York.
Clupea neglecta Rafinesque, Amer. Month. Mag., 1818, 206, Long Island.
Clupea carolinensis Gronow, Cat. Fishes, 1854, 140, South Carolina.
229. *Brevoortia tyrannus brevipaudata* Goode. *Short-tailed menhaden*.
South Atlantic north to Connecticut.
Brevoortia tyrannus brevipaudata Goode, Proc. U. S. Nat. Mus., I, 1878,
34, Noank, Conn.
230. *Brevoortia patronus* Goode. *Gulf menhaden*.
Gulf of Mexico; coast of Texas.
Brevoortia patronus Goode, Proc. U. S. Nat. Mus., I, 1878, 39, Brazos
Santiago, Tex.
- Genus 103. *ILISHA* Gray.
Platygaster Swainson, Class. Anim., II, 1839, 294 (*Clupea africana*
Bloch); name preoccupied.
Ilisha Gray, in Richardson, Ichthy. China, in Proc. Brit. Assoc., 1845
(1846), 306 (*I. abnormis*); no description.
Pellona Cuvier and Valenciennes, Hist. Nat. Poiss., XX, 1847, 300
(*P. orbignyana* = *Pristigaster flavipinnis* Valenciennes).

- 231. *Nisha caribbæa* Meek and Hildebrand.**
Caribbean Sea.
Nisha caribbæa Meek and Hildebrand, Marine Fishes of Panama, Pt. 1,
Field Mus. Nat. Hist., Zool., XV, Dec. 20, 1923, 191, Pl. X, fig. 1,
Porto Bello, Panama.
- Genus 104. CHIROCENTRODON** Günther.
Chirocentrodon Günther, Cat., VII, 1868, 463 (*C. tæniatus* Günther)
Medipellona Jordan and Seale, Mem. Mus. Comp. Zool., LXVII, No. 11,
May, 1926, 417 (*Pellona bleekariana* Poey).
- 232. *Chirocentrodon tæniatus* Günther.**
Jamaica.
Chirocentrodon tæniatus Günther, Cat., VII, 1868, 463, Jamaica.
- 233. *Chirocentrodon bleekariana* (Poey). *Anchoa pelada*.**
Matanzas, Cuba.
Pellona bleekariana Poey, Repertorio, II, 1867, 242, Matanzas, Cuba
- Genus 105. OPISTHOPTERUS** Gill.
Opisthopterus Gill, Proc. Acad. Nat. Sci. Phila., XII, 1861, 38 (*Pristigaster tartoon* Cuvier and Valenciennes).
- 234. *Opisthopterus dovii* (Günther).**
Panama.
Pristigaster dovii Günther, Cat., VII, 1861, 461, Panama.
- 235. *Opisthopterus macrops* (Günther).**
Panama.
Pristigaster macrops Günther, Proc. Zool. Soc. Lond., 1866, 603, Panama.
- Genus 106. PLIOSTEOSTOMA** Norman.
Pliosteostoma Norman, Ann. Mag. Nat. Hist., XI, 1923, 21 (*Pristigaster lutipinnis* Jordan and Gilbert).
- 236. *Pliosteostoma lutipinnis* (Jordan and Gilbert).**
Pacific coast of Mexico.
Pristigaster lutipinnis Jordan and Gilbert, Proc. U. S. Nat. Mus., IV,
1881, 340, Mazatlan, Mexico.
- Genus 107. ODONTOGNATHUS** Lacépède.
Odontognathus Lacépède, Hist. Nat. Poiss., II, 1799, 221 (*O. mucronatus*).
Gnathobolus Bloch and Schneider, Syst. Ichth., 1801, 556 (*Odontognathus mucronatus* Lacépède.).
- 237. *Odontognathus mucronatus* Lacépède.**
Coast of Guiana.
Odontognathus mucronatus Lacépède, Hist. Nat. Poiss., 1799, 221, pl.
7, fig. 2, Cayenne.
- 238. *Odontognathus panamensis* (Steindachner).**
Panama.
Pristigaster (Odontognathus) panamensis Steindachner, Ichth. Beitr.,
V, 1876, 24, Panama.
- Genus 108. PRISTIGASTER** Cuvier.
Pristigaster Cuvier, Règne Anim., ed. I, 1817, 176 (type not named;
later fixed as *P. cayanus* Cuvier).
- 239. *Pristigaster cayanus* Cuvier.**
Coast of Guiana and northern Brazil.
Pristigaster cayanus Cuvier, Règne Anim., ed. I, 1817, pl. 10, fig. 3,
Cayenne.
Pristigaster martin Agassiz, in Spix, Pisc. Brasil., 1829, 55, Brazil.
Pristigaster phacton Cuvier and Valenciennes, Hist. Nat. Poiss., XX,
1847, 338, mouth of Amazon.

Family 43. DUSSUMIERIIDÆ. Round herrings

- Genus 109. JENKINSIA** Jordan and Evermann.
Jenkinsia Jordan and Evermann, Fishes North and Mid. Amer., 1896,
418 (*Dussumiera stolidifera* Jordan and Gilbert).

240. *Jenkinsia stolidifera* (Jordan and Gilbert).
Gulf of Mexico from Florida to Yucatan.
Dussumiera stolidifera Jordan and Gilbert, Proc. U. S. Nat. Mus., VII,
1884, 25, Key West, Fla.
241. *Jenkinsia lamprotænia* (Gosse).
Jamaica.
Clupea lamprotænia Gosse, Naturalist's Sojourn in Jamaica, 1851, 291,
pl. 1, fig. 2, Jamaica.
- Genus 110. *HALECUA* Jordan.
Halecula Jordan, Fossil Fishes of the Calif. Miocene, VIII, 1925,
(*Etrumeus acuminatus* Gilbert).
242. *Halecula acuminata* (Gilbert).
Gulf of California.
Etrumeus acuminatus Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 56,
Gulf of California at Albatross station 3012 in 22 fathoms.
- Genus 111. *ETRUMEUS* Bleeker.
Etrumeus Bleeker, Verh. Bat. Gen. Japan, XXV, 1853, 58, (*Clupea micropus* Temminck and Schlegel, a Japanese species).
Perkinsia Rosa Smith Eigenmann, Amer. Nat., XXV, 1891, 153 (*P. othonops* R. S. Eigenmann).
243. *Etrumeus sadina* (Mitchill). *Round herring*.
Cape Cod to Gulf of Mexico.
Clupea sadina Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 457,
New York.
Alosa teres DeKay, New York Fauna: Fishes, 1842, 262, New York.
244. *Etrumeus micropus* Temminck and Schlegel.
Coast of Japan; Hawaii; found once off Point Loma in California.
Etrumeus micropus Temminck and Schlegel, Fauna Japonica, Poiss.,
1850, 236, pl. 107, fig. 2, Japan.
Perkinsia othonops Rosa Smith Eigenmann, Amer. Nat., XXV, 1891,
153, Point Loma, San Diego, Calif.

Family 44. DOROSOMIDÆ. Gizzard shad

- Genus 112. *DOROSOMA* Rafinesque. Gizzard shads.
Dorosoma Rafinesque, Ichth. Ohiensis, 1820, 39 (*D. notata* Rafinesque).
Chatoëssus Cuvier, Règne Anim., ed. 2, II, 1829, 320; in part (includes
Opisthonema, etc; restricted by Cuvier and Valenciennes to *Megalops cepedianus* LeSueur).
245. *Dorosoma cepedianum* (LeSueur). *Gizzard shad; Hickory shad*.
Cape Cod to Texas, entering all streams and variously landlocked.
Megalops cepedianus LeSueur, Jour. Acad. Nat. Sci. Phila., I, 1818,
Delaware and Chesapeake Bays.
Clupea heterura Rafinesque, Amer. Month. Mag., 1818, 354, Ohio River.
Dorosoma notata Rafinesque, Ichth. Ohiensis, 1820, 39, Ohio River.
Chatoëssus ellipticus Kirtland, Rep. Zool. Ohio, 1839, 169, Ohio River.
Dorosoma insociabilis Abbot, Proc. Acad. Nat. Sci. Phila., XII, 1860,
365, Sturgeon Pond, Trenton, N. J.
246. *Dorosoma cepedianum exile* Jordan and Gilbert.
Streams of Texas.
Dorosoma cepedianum exile Jordan and Gilbert, Proc. U. S. Nat. Mus.,
V, 1882, 585, Galveston, Tex.
- Genus 113. *SIGNALOSA* Evermann and Kendall.
Signalosa Evermann and Kendall, Bull. U. S. Fish Com., XVII, 1897
(Feb. 9, 1898), 127 (*S. atchafalaya* Evermann and Kendall).
247. *Signalosa atchafalaya* Evermann and Kendall.
Coast of Louisiana and southward.
? *Chatoëssus mexicanus* Günther, Cat., VII, 1868, 409, Mexico.
Signalosa atchafalaya Evermann and Kendall, Bull. U. S. Fish Com.,
XVII, 1897 (Feb. 9, 1898), 127, pl. 7, fig. 4, Atchafalaya River,
Melville, La.

248. *Signalosa atchafalayæ vanhyningi* Weed.
Near Gainesville, Fla.
Signalosa atchafalayæ vanhyningi Weed, Field Mus. Nat. Hist., Zool., XII, October, 1925, 145, Prairie Creek 8 miles southeast of Gainesville, Fla.
249. *Signalosa mexicana* (Günther).
New Orleans to Central America.
Chatoessu mexicanus Günther, Cat., VII, 1868, 409, Mexico.
250. *Signalosa mexicana campi* Weed.
Streams about Brownsville, Tex.
Signalosa mexicana campi Weed, Field Mus. Nat. Hist., Zool., XII, October, 1925, 143, Resaca de la Guerra, near Brownsville, Tex.
251. *Signalosa petenensis* (Günther).
Lake Peten.
Meletia petenensis Günther, Proc. Zool. Soc. Lond., 1866, 603, Lake Peten, Yucatan.

Family 45. ENGRAULIDÆ. Anchovies

Genus 114. ENGRAULIS Cuvier. *Anchovies*.*Engraulis* Cuvier, Règne Anim., ed. I, 1817, 174 (*Chupea encrasicholus* L.).*Encrasicholus* Fleming, Brit. Anim., 1828, 183 (*Chupea encrasicholus* L.).

252. *Engraulis mordax* Girard. *California anchovy*.
Pacific coast of America, from Vancouver Island to Lower California.
Engraulis mordax Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 138, and in Pac. R. R. Surv., X, pt. 4, Fishes, 1858, 334, Shoalwater Bay, Wash.

253. *Engraulis nanus* Girard. *Bay anchovy*.
San Francisco Bay; not known elsewhere.
Engraulis nanus Girard, Pac. R. R. Surv., X, pt. 4, Fishes, 1858, 335, San Francisco.

Genus 115. ANCHOVIELLA²⁰ Fowler. *American anchovies*.*Anchoiella* Fowler, Proc. Acad. Nat. Sci. Phila., LXIII, 1911, 211 (*Engraulis perfasciatus* Poey).*Anchoa* Jordan and Evermann, Proc. Calif. Acad. Sci., 4th Ser., XV, April 27, 1927, 502 (*Engraulis compressus* Girard).

Subgenus ANCHOVIELLA Fowler.

254. *Anchoiella perfasciata* (Poey). *Grubber broadhead*.
Florida Keys to Jamaica.
Engraulis perfasciatus Poey, Memorias, II, 1861, 313, Cuba.
255. *Anchoiella miarchus* (Jordan and Gilbert).
Pacific coast of America, from Mazatlan to Panama.
Stolephorus miarchus Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 344, Mazatlan; perhaps a larval form.
256. *Anchoiella exigua* (Jordan and Gilbert).
Pacific coast of Mexico at Mazatlan.
Stolephorus exiguus Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 343, Mazatlan.
257. *Anchoiella perthecata* (Goode and Bean).
Pensacola, Fla.
Stolephorus perthecatus Goode and Bean, Proc. U. S. Nat. Mus., V, 1882, 434, Pensacola, Fla.

²⁰ *Anchoiella* differs from *Stolephorus* Lacépède and related Old World genera in the entire absence of ventral scales. The many species cover a variety of forms; *rostralis* and *spinifer* with its relatives being perhaps generically distinct from *perfasciatus*, *epsetus*, and related forms, having many more gillrakers; these latter species constitute the subgenus *Anchoa*, the others the subgenus *Anchoiella* Fowler.

258. *Anchoviella epsetus* (Bonnaterre). *Striped anchovy; Manjua; Anchovy fry*.
Cape Cod to Brazil.
Piquitinga Marcgrave, Hist. Brasil., 1648, 159, Brazil.
Menidia Browne, Hist. Jamaica, 1756, 441, Jamaica; nonbinomial.
Esox epsetus Bonnaterre, Tabl. Ichth., 1788, 175, Jamaica; after Browne.
Atherina brownii Gmelin, Syst. Nat., 1789, 1397, Jamaica; after Browne.
Engraulis tricolor Agassiz, in Spix, Pisc. Brasil., 1829, 51, Bahia, Pará.
Engraulis lemniscatus Cuvier, Règne Anim., ed. 2, II, 1829, 323, Brazil; after *Piquitinga* of Marcgrave.
Stolephorus hualcus Goode and Bean, Proc. U. S. Nat. Mus., II, 1879, 343, Clearwater Harbor, Fla.; depth $5\frac{1}{2}$; A, 22.
259. *Anchoviella cubana* (Poey). *Bocon*.
Cuba and Porto Rico.
Engraulis cubanus Poey, Synopsis, 1868, 420, Cuba.
260. *Anchoviella ischana* (Jordan and Gilbert).
Pacific coast of America, from Mazatlan to Panama.
Stolephorus ischanus Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 340, Mazatlan.
Stolephorus starksi Gilbert and Pierson, Fishes of Panama, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2813, Panama.
261. *Anchoviella cultrata* (Gilbert).
Santa Margarita Island, Lower California.
Stolephorus cultratus Gilbert, Proc. U. S. Nat. Mus., XIV, 1891, 544, Santa Margarita Island, Lower California.
262. *Anchoviella delicatissima* (Girard).
San Diego Bay and southward on coast of Lower California.
Engraulis delicatissimus Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 154, and Pac. R. R. Surv., X, Pt. 4, Fishes, 1858, 335, San Diego.
263. *Anchoviella helleri* Hubbs.
Gulf of California
Anchoviella helleri Hubbs, Proc. Biol. Soc., Wash., XXXIV, Mar. 31, 1921, 47, San Felipe Bay, gulf coast of Lower California.
264. *Anchoviella choerostoma* (Goode). *Hogmouth fry*.
Bermuda Islands; common in Hamilton Harbor.
Engraulis choerostomus Goode, Amer. Jour. Sci. Arts, August, 1874, 125, Bermuda.
265. *Anchoviella argyrophana* (Cuvier and Valenciennes).
Gulf Stream; Woods Hole, Mass.
Engraulis argyrophanus Cuvier and Valenciennes, Hist. Nat. Poiss., XXI, 1848, 49, equatorial Atlantic.
Stolephorus eurystole Swain and Meek, Proc. Acad. Nat. Sci. Phila., XXXVI, 1884, 34, Woods Hole, Mass.
266. *Anchoviella curta* (Jordan and Gilbert).
Mazatlan, Mexico.
Stolephorus curtus Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 343, Mazatlan, Mexico.
267. *Anchoviella mitchilli* (Cuvier and Valenciennes).
Cape Cod to Texas on sandy shores, entering rivers; common.
Engraulis mitchilli Cuvier and Valenciennes, Hist. Nat. Poiss., XXI, 1848, 50, New York; Carolina; Lake Ponchartrain.
Engraulis louisiana LeSueur, in Cuvier and Valenciennes, Hist. Nat. Poiss., XXI, 1848, 51, Lake Ponchartrain, La.
Engraulis duodecim Cope, Trans. Amer. Phil. Soc., 1866, 405, Beasley's Point, N. J. (dorsal fin said to be entirely anterior to the long and deeply concave anal, which is not true in *S. mitchilli*; the description otherwise agrees).
268. *Anchoviella lucida* (Jordan and Gilbert). *Sardina*.
Mazatlan, Mexico.
Stolephorus lucidus Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 341, Mazatlan,

269. *Anchoviella naso* (Gilbert and Pierson).
Panama; common.
Stolephorus naso Gilbert and Pierson, in Jordan and Evermann, Fishes
North and Mid. Amer., 1898, 2813, Panama.
270. *Anchoviella robertsi* (Jordan and Rutter).
West Indies.
Stolephorus robertsi Jordan and Rutter, Proc. Acad. Nat. Sci. Phila.,
XLIX, 1897, 95, Jamaica.
271. *Anchoviella astilbe* (Jordan and Rutter).
West Indies.
Stolephorus astilbe Jordan and Rutter, Proc. Acad. Nat. Sci. Phila.,
XLIX, 1897, 95, Jamaica.
272. *Anchoviella scofieldi* (Jordan and Culver).
Astillerio at Mazatlan; not very abundant.
Stolephorus scofieldi Jordan and Culver, in Jordan, Fishes of Sinaloa,
Proc. Calif. Acad. Sci., 3d Ser., V, 1895, 410, Mazatlan, Mexico.
273. *Anchoviella lyolepis* (Evermann and Marsh).
Porto Rico.
Stolephorus lyolepis Evermann and Marsh, Bull. U. S. Fish Com., XX,
1900 (Dec. 29), 89, fig. 13, Culebra Island, Porto Rico.
274. *Anchoviella branchiomelas* (Eigenmann).
North coast of Colombia.
Stolephorus branchiomelas Eigenmann, Proc. Am. Phil. Soc., LVI, 1917,
682, mouth of Rio Dagua, Colombia.
275. *Anchoviella arenicola* (Meek and Hildebrand).
Panama.
Anchovia arenicola Meek and Hildebrand, Marine Fishes of Panama,
in Field Mus. Nat. Hist., Zool., XV, 1923, 201, Pl. XIII, fig. 1,
Taboga Island, Panama.
276. *Anchoviella scitula* (Fowler).
Coast of California; San Diego.
Anchovia scitula Fowler, Proc. Acad. Nat. Sci. Phila., LXIII, 1911, 211,
fig. 2, San Diego, Calif.
277. *Anchoviella parva* (Meek and Hildebrand).
Colon.
Anchovia parva Meek and Hildebrand, Marine Fishes of Panama, in
Field Mus. Nat. Hist., Zool., XV, 1923, 202, Pl. X, fig. 2, Porto Bello,
Panama.
278. *Anchoviella elongata* (Meek and Hildebrand).
Canal Zone.
Anchovia elongata Meek and Hildebrand, Marine Fishes of Panama, in
Field Mus. Nat. Hist., Zool., XV, 1923, 198, Pl. XII, fig. 2, Mindi
Cut, Canal Zone.
279. *Anchoviella cayorum* (Fowler).
Florida Keys.
Anchovia chærostoma cayorum Fowler, Proc. Acad. Nat. Sci. Phila.,
LVII, 1906, 85, fig. 4, Hailer's Rock, Florida Keys.
280. *Anchoviella platyargyrea* (Fowler).
West Indies.
Anchovia platyargyrea Fowler, Proc. Acad. Nat. Sci. Phila., LXIII, 1911,
216, fig. 4, St. Martin's, West Indies.
281. *Anchoviella lepidentostole* (Fowler).
Coast of Surinam.
Anchovia lepidentostole Fowler, Proc. Acad. Nat. Sci. Phila., LXIII,
1911, 214, fig. 3, Surinam.
282. *Anchoviella guianensis* (Eigenmann).
Coast of Guiana.
Stolephorus guianensis Eigenmann, Mem. Carnegie Mus., V, 1912, 448,
Pl. LXII, fig. 5, Bartica Rocks, British Guiana; misspelled *Stoleferus*
in plate.

283. *Anchoviella trinitatis* (Fowler).
British West Indies.
Anchovia trinitatis Fowler, Proc. Acad. Nat. Sci. Phila., LXVII, 1915, 527, fig. 3, Port of Spain, Trinidad, British West Indies.
284. *Anchoviella filifera* (Fowler).
British West Indies.
Anchovia filifera Fowler, Proc. Acad. Nat. Sci. Phila., LXVII, 1915, 534, fig. 2, Port of Spain, Trinidad, British West Indies.
285. *Anchoviella abbotti* (Fowler).
British West Indies.
Anchovia abbotti Fowler, Proc. Acad. Nat. Sci. Phila., LXVII, 1915, 522, fig. 1, Port of Spain, Trinidad, British West Indies.
- Subgenus ANCHOA Jordan and Evermann.
286. *Anchoviella compressa* (Girard).
Point Conception to Lower California.
Engraulis compressus Girard, Pac. R. R. Surv., X, 1858, 336, San Diego.
287. *Anchoviella spinifera* (Cuvier and Valenciennes).
Coast of Guiana; recorded from Panama by Steindachner, probably an error.
Engraulis spinifer Cuvier and Valenciennes, Hist. Nat. Poiss., XXI, 1848, 39, Cayenne.
288. *Anchoviella rastralis* (Gilbert and Pierson).
Panama; abundant.
Stolephorus rastralis Gilbert and Pierson, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2811, Panama.
289. *Anchoviella mundeola* (Gilbert and Pierson).
Panama; abundant.
Stolephorus mundeolus Gilbert and Pierson, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2812, Panama.
290. *Anchoviella panamensis* (Steindachner).
Panama.
Engraulis panamensis Steindachner, Ichth. Beitr., IV, 1875, 39, Panama.
291. *Anchoviella eigenmannia* (Meek and Hildebrand).
Panama.
Anchovia eigenmannia Meek and Hildebrand, Marine Fishes of Panama, in Field Mus. Nat. Hist., Zool., XV, 1923, 20, Taboga Island, Canal Zone.
- Genus 116. ANCHOVIA Jordan and Evermann.
Anchovia Jordan and Evermann, Fishes North and Mid. Amer., 1896, 449, (*Engraulis macrolepidotus* Kner and Steindachner).
292. *Anchovia macrolepidota* (Kner and Steindachner). *Sardina bocona*.
Gulf of Mexico to Panama.
Engraulis macrolepidotus Kner and Steindachner, Abhandl. Bayer. Akad. Wiss., X, 1864, 21, Pl. III, fig. 2, Rio Bayano, Panama.
293. *Anchovia clupeioides* (Swainson). *Hechudo*; *Grubber broadhead*.
Coast of Cuba and southward; common, ascending streams.
Engraulis clupeioides Swainson, Nat. Hist. Fish., II, 1839, 388, Pernambuco.
Stolephorus surinamensis Bleeker, Nederl. Tijdschr. Dierk., 1866, 178, Surinam.
Engraulis productus Poey, Repertorio, 1866, 380, Cuba.
- Genus 117. AMPLOVA Jordan and Seale.
Amplova Jordan and Seale, Copeia, No. 141, 1925, 31 (*Stolephorus brevirostrum* Meek and Hildebrand; not *Engraulis brevirostris*, Günther, also a species of *Amplova*).
294. *Amplova balboæ* Jordan and Seale.
Panama.
Amplova balboæ Jordan and Seale, Copeia, No. 141, Apr. 30, 1925, 31, substitute for *Stolephorus brevirostrum* Meek and Hildebrand.

Anchovia brevirostrum Meek and Hildebrand, Field Mus. Nat. Hist., Zool., XV, 1923, Pt. I, 198, Pl. XV, fig. 1; not *Engraulis brevirostris* Gunther from Brazil, also a species of *Amplova*.

Genus 118. CETENGRAULIS Günther.

Cetengraulis Günther, Cat., VII, 1868, 383 (*Engraulis edentulus* Cuvier).

295. *Cetengraulis edentulus* (Cuvier). Bocon; Tarpon fry.

West Indies to Brazil; common in Cuba.

Sprat Sloane, Hist. Jamaica, II, 1727, 282, Jamaica; after Sloane.

Engraulis edentulus Cuvier, Règne Anim., ed. 2, II, 1829, 323, Jamaica.

Engraulis brevis Poey, Repertorio, I, 1866, 379, Cuba.

296. *Cetengraulis gilberti* (Evermann and Marsh).

Coast of Porto Rico.

Stolephorus gilberti Evermann and Marsh, Rept. U. S. Fish Com., XXV, 1899 (Dec. 19), 352, Palo Seco near San Juan, Porto Rico.

297. *Cetengraulis garmani* (Evermann and Marsh). Porto Rican anchovy.

Porto Rico.

Stolephorus garmani Evermann and Marsh, Rept. U. S. Fish Com., XXV, 1899, (Dec. 19), 352, Puerto Real, Porto Rico.

298. *Cetengraulis mysticetus* (Günther).

Pacific coast of tropical America.

Engraulis mysticetus Günther, Proc. Zool. Soc. Lond., 1866, 604, Panama.

Stolephorus opercularis Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 275, Punta San Felipe, Gulf of California.

299. *Cetengraulis engymen* Gilbert and Pierson.

Panama Bay.

Cetengraulis engymen Gilbert and Pierson, in Jordan and Evermann, Fishes North and Mid. Amer. 1898, 2815, Panama Bay.

Genus 119. PTERENGRAULIS Günther.

Pterengraulis Günther, Cat., VII, 1868, 398, (*Clupea atherinoides* L.).

300. *Pterengraulis atherinoides* (Linnæus).

Coast of Guiana and Brazil; ascending rivers.

Clupea atherinoides Linnæus, Syst. Nat., ed. XII, 1766, 523, Surinam.

Genus 120. LYCENGRAULIS Günther.

Lycengraulis Günther, Cat., VII, 1868, 399 (*Engraulis grossidens* Cuvier).

301. *Lycengraulis grossidens* (Cuvier).

Coast of Guiana and Brazil.

Engraulis grossidens Cuvier, in Agassiz, Spix, Pisc. Brasil., 1828, 50, Rio Janeiro.

Engraulis janeiro Agassiz, loc. cit., pl. 24, fig. 1, Rio Janeiro.

Engraulis dentex Cuvier and Valenciennes, Hist. Nat. Poiss., XXI, 1848, 28, Rio Janeiro.

302. *Lycengraulis poeyi* (Kner and Steindachner).

Rio Bayano, Panama.

Engraulis poeyi Kner and Steindachner, Abhandl. Bayer. Akad. Wiss., X, 1864, 23, with plate; Rio Bayano.

Family 46. ALEPOCEPHALIDÆ

Genus 121. ALEPOCEPHALUS Risso.

Alepocephalus Risso, Mém. Acad. Nat. Sci. Turin, XXV, 1820, 270 (*A. rostratus* Risso).

303. *Alepocephalus agassizii* Goode and Bean.

Gulf Stream.

Alepocephalus agassizii Goode and Bean, Bull. Mus. Comp. Zool., X, 1883, 318, Gulf Stream.

304. *Alepocephalus productus* Gill.

Gulf Stream.

Alepocephalus productus Gill, Proc. U. S. Nat. Mus., VI, 1883, 256, Gulf Stream at Albatross station 2035 in 1,362 fathoms.

305. *Alepocephalus tenebrosus* Gilbert.
Santa Barbara Channel, California.
Alepocephalus tenebrosus Gilbert, Proc. U. S. Nat. Mus., XIV, 1891,
545, Santa Barbara Channel.
306. *Alepocephalus asperifrons* Garman.
Off Panama in deep water.
Alepocephalus asperifrons Garman, Mem. Mus. Comp. Zool., XXIV,
1899, 291, Pl. LIX, fig. 1, Panama.
307. *Alepocephalus convexifrons* Garman
Off Pacific coast of Mexico, in deep water.
Alepocephalus convexifrons Garman, Mem. Mus. Comp. Zool., XXIV,
1899, 292, Pl. LIX, fig. 2; off Pacific coast of Mexico.
308. *Alepocephalus fundulus* Garman.
Pacific coast of Panama, in deep water.
Alepocephalus fundulus Garman, Mem. Mus. Comp. Zool., XXIV,
1899, 293, Pl. LVII, fig. 2; off Panama in deep water.
- Genus 122. MITCHILLINA Jordan and Evermann.
Mitchillina Jordan and Evermann, Fishes North and Mid. Amer.,
1896, 453, (*Alepocephalus bairdii* Goode and Bean).
309. *Mitchillina bairdii* (Goode and Bean).
Grand Banks of Newfoundland.
Alepocephalus bairdii Goode and Bean, Proc. U. S. Nat. Mus., II, 1879,
55, Grand Banks of Newfoundland.
- Genus 123. BATHYTROCTES Günther.
Bathytroctes Gunther, Ann. Mag. Nat. Hist., II, 5th ser., 1878, 249
(*B. microlepis* Günther).
310. *Bathytroctes stomias* Gilbert.
Coast of Oregon.
Bathytroctes stomias Gilbert, Proc. U. S. Nat. Mus., XII, 1890, 53,
coast of Oregon in 877 fathoms, Albatross station 3074.
311. *Bathytroctes inspector* Garman.
Pacific coast of Panama, in deep water.
Bathytroctes inspector Garman, Mem. Mus. Comp. Zool., XXIV, 1899,
285, Pl. M., fig. 1; Panama.
312. *Bathytroctes alveatus* Garman.
Pacific coast of Panama in deep water.
Bathytroctes alveatus Garman, Mem. Mus. Comp. Zool., XXIV, 1899,
Pl. LVIII, fig. 1, 287; Panama.
313. *Bathytroctes alvifrons* Garman.
Pacific coast of Panama in deep water.
Bathytroctes alvifrons Garman, Mem. Mus. Comp. Zool., XXIV, 1899,
286, Pl. LVIII, figs. 2, 2a; Panama.
- Genus 124. XENOGNATHUS Gilbert.
Xenognathus Gilbert, Proc. U. S. Nat. Mus., XLVIII, 1915, 311, (X.
profundorum Gilbert).
314. *Xenognathus profundorum* Gilbert.
Coast of California, in deep water, 1,350 to 2,182 fathoms.
Xenognathus profundorum Gilbert, Proc. U. S. Nat. Mus., XLVIII,
1915, 311, off Santa Catalina Island, California.
- Genus 125. NARCETES Alcock.
Narcetes Alcock, Ann. Mag. Nat. Hist., VI, 1890, 305 (*N. erimelas*
Alcock).
315. *Narcetes stomias* (Gilbert).
Off Pacific coast of America, from Oregon to southern California in
deep water.
Bathytroctes stomias Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 53,
coast of Oregon in 877 fathoms, Albatross station 3074.
316. *Narcetes pluriserialis* Garman.
Pacific coast of Panama in deep water.
Narcetes pluriserialis Garman, Mem. Mus. Comp. Zool., XXIV, 1899,
289, Pl. LVII, fig. 3; Panama.

- Genus 126. LEPTOCHILICHTHYS** Garman.
Leptochilichthys Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 284
 (*L. agassizii* Garman).
- 317. *Leptochilichthys agassizii* Garman.**
 Pacific coast of Panama, in deep water.
Leptochilichthys agassizii Garman, Mem. Mus. Comp. Zool., XXIV,
 1899, 286, Pl. LVIII, fig. 3; off Panama.
- Genus 127. PLATYTROCTES** Günther.
Platytröctes Günther, Ann. Mag. Nat. Hist., II, 1878, 249 (*P. apus*
 Günther).
- 318. *Platytröctes apus* Günther.**
 Mid-Atlantic and the Arabian Sea.
Platytröctes apus Günther, Ann. Mag. Nat. Hist., II, 1878, 249, Mid-
 Atlantic.
- Genus 128. TALISMANIA** Goode and Bean.
Talismania Goode and Bean, Oceanic Ichth., 1895, 41 (*Bathytroctes*
homopterus Vaillant).
- 319. *Talismania antillarum* Goode and Bean.**
 Caribbean Sea.
Talismania antillarum Goode and Bean, Oceanic Ichth., 1895, 44, fig.
 49, Albatross station 2394, in Caribbean Sea, lat. 28° 38' 30" N.,
 long. 87° 2' W., 420 fathoms.
- 320. *Talismania æquatoris* Goode and Bean.**
 Coast of Ecuador.
Talismania æquatoris Goode and Bean, Oceanic Ichth., 1895, 44, fig. 50,
 off coast of Ecuador.
- Genus 129. CONOCARA** Goode and Bean.
Conocara Goode and Bean, Oceanic Ichth., 1895, 39 (*C. macdonaldi*
 Goode and Bean).
- 321. *Conocara macdonaldi* Goode and Bean.**
 Gulf of Mexico.
Conocara macdonaldi Goode and Bean, Oceanic Ichth., 1895, 39, fig. 48,
 Gulf of Mexico.
- 322. *Conocara macroptera* (Vaillant).**
 Deep seas, coast of Morocco to Soudan, banc d'Arguin, and from the
 Canaries. A specimen 8 inches in length was obtained by the
 Albatross at station 2751, lat. 16° 57' N., long. 63° 12' W., in 68
 fathoms.
Alepocephalus macropterus Vaillant, Expéd. Sci. Travailleur et Talisman,
 Poissons, 1888, 150, Pl. XI, figs 2a, 2b, 2c, coast of Morocco, Soudan,
 and Canaries.
- Genus 130. BAJACALIFORNIA** Townsend and Nichols.
Bajacalifornia Townsend and Nichols, Bull. Amer. Mus. Nat. Hist.,
 LII, 1925, 8 (*B. burragei* Townsend and Nichols).
- 323. *Bajacalifornia burragei* Townsend and Nichols.**
 West coast of Lower California in deep water.
Bajacalifornia burragei Townsend and Nichols, Bull. Am. Mus. Nat.
 Hist., LII, 1925, 8, fig. 3, off Todos Santos Bay, Lower California,
 in 590 fathoms.
- Genus 131. XENODERMICHTHYS** Günther.
Xenodermichthys Günther, Ann. Mag. Nat. Hist., II, ser. 5, 1878, 250
 (*X. nodulosus* Günther).
Aleposomus Gill, Amer. Nat., XVIII, 1884, 433 (*A. copei* Gill).
- 324. *Xenodermichthys copei* (Gill).**
 Gulf Stream.
Aleposomus copei Gill, Amer. Nat., XVIII, 1884, 433, Gulf Stream, lat.
 37° 12' 20" N., long. 69° 39' W.
- Genus 132. ERICARA** Gill and Townsend.
Ericara Gill and Townsend, Proc. Biol. Soc. Wash., XI, 1897, 232
 (*E. salmonea* Gill and Townsend).

325. *Ericara salmonea* Gill and Townsend.

Bering Sea, southwest of Pribilof Islands.

Ericara salmonea Gill and Townsend, Proc. Biol. Soc. Wash., XI, 1897, 232, Bering Sea.Genus 133. *ATOPICHTHYS* Garman.*Atopichthys*²¹ Garman, Mem., Mus. Comp. Zool., XXIV, 1899, 325 (*A. esunculus* Garman).326. *Atopichthys esunculus* Garman.

Pacific coast of Mexico.

Atopichthys esunculus Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 327, Pl. LXV, figs. 2, 2a; off Acapulco, Mexico.

Suborder SALMONOIDEI

Family 47. SALMONIDÆ. Salmon; Trout

Genus 134. *ONCORHYNCHUS* Suckley. *Pacific salmon.**Oncorhynchus* Suckley, Ann. Lyc. Nat. Hist. N. Y., VII, 1861, 313 (*Salmo scouleri* Richardson=*Salmo gorbuscha* Walbaum).*Hypsifario* Gill, Proc. Acad. Nat. Sci. Phila., XI, 1862, 330 (*Salmo kennerlyi* Gill).Subgenus. *ONCORHYNCHUS* Suckley.327. *Oncorhynchus gorbuscha* (Walbaum). *Humpback salmon; Pink salmon, Haddo; Holia; Gorbuscha.*

Pacific coast and rivers of North America and Asia, from California northward.

Salmo gorbuscha Walbaum, Artedi Pisc. 1792, 69, Kamchatka; after Gorbuscha of Pennant and Krasheninnikof.*Salmo gibber* Bloch and Schneider, Syst. Ichth., 1801, 409, Kamchatka; after Krasheninnikof.*Salmo proteus* Pallas, Zoogr. Rosso-Asiat., III, 1811, 376, Bering Sea.*Salmo scouleri* Richardson, Fauna Bor.-Amer., III, 1836, 158; Observatory Inlet.*Salmo tshawytschiformis* Smitt, I Riksmuseum Befintliga Salmonider, 1886, 161; Port Clarence.328. *Oncorhynchus keta* (Walbaum). *Dog salmon; Hayko; Le kai salmon; Chum; Calco salmon.*

Pacific coast of America, from San Francisco to Kamchatka.

Salmo keta vel *kayko* Walbaum, Artedi Pisc., 1792, 72, rivers of Kamchatka; after *keta* or *kayko* of Pennant and Krasheninnikof.*Salmo lagocephalus* Pallas, Zoogr. Rosso-Asiat., III, 1811, 372; Bering Sea.*?Salmo japonicus* Pallas, loc. cit., 382, Curile Islands; Amur River.*Salmo dermatinus* Richardson, Voy. Herald, Zool., 1854, 167; Yukon River.*Salmo consuetus* Richardson, loc. cit., 168; Yukon River.*Salmo canis* Suckley, Ann. Lyc. Nat. Hist. N. Y., VII, 1858, 9, and Monogr. Salmo, 101, 1861 (1874); Puget Sound.329. *Oncorhynchus kisutch* (Walbaum). *Silver salmon; Kisutch; Medium red salmon; Skowitz; Hoopid salmon; Coho salmon; Bielaya ryba; Quitsutch; Tschaviche.*

From San Francisco northward, especially in Puget Sound and the Alaskan fjords; south on the Asiatic coast to Japan.

?Salmo milktschutch Walbaum, Artedi Pisc., 1792, 70, Bering Sea; after *milktschutch* or *milktschisch* of Pennant and Krasheninnikof; probably the young of *kisutch*.*Salmo kisutch* Walbaum, Artedi Pisc., 1792, 70, rivers and lakes of Kamchatka; after the *kisutch* of Pennant.*?Salmo striatus* Bloch and Schneider, Syst. Ichth., 1801, 407, Kamchatka; after *milktschutch* of Krasheninnikof.

²¹ This name is given not as a genus, but rather as a group name of larval fishes related to the eels or to the Alepocephalidae, commonly known as *Leptocephalus*, but *Leptocephalus morrisi* (type of *Leptocephalus*) is now known to be a young conger. A number of these larvae (*A. siccatus*, *cinctus*, *dentatus*, *falcidens*, *acutus*, *opichthys*, *cingulus*, *lychnus*, *obtusius*, and *longidens*) are described by Garman (Deep Sea Fishes), but they need not be specifically recognized here. The species called *Atopichthys esunculus* Garman, perhaps belonging to the Alepocephalidae, has been designated as the type of this group.

Salmo kisutch Bloch and Schneider, loc. cit., 407, Kamchatka; after Pennant.

Salmo sanguinolentus Pallas, Zoogr. Rosso-Asiat., III, 1811, 379, Bering Sea.

Salmo tsuppich Richardson, Fauna Bor.-Amer., III, 1836, 224, Columbia River.

Subgenus HYSIFARIO Gill.

330. *Oncorhynchus nerka* (Walbaum). *Blueback salmon*; *Redfish*; *Fraser River salmon*; *Nerka*; *Sau-qui salmon*; *Sockeye or Sukkegh salmon*; *Krashnaya ryba*.

Klamath River and Rogue River to northern Alaska, Kamchatka, and Japan.

Salmo nerka Walbaum, Artedi Pisc., 1792, 71; after the *nerka* of Pennant, *narka* of Krashenninnikof; rivers and seas of Kamchatka.

Salmo lycaodon Pallas, Zoogr. Rosso-Asiat., III, 1811, 370, Okhotsk Sea, Kamchatka.

Salmo paucidens Richardson, Fauna Bor.-Amer., III, 1836, 222, Columbia River.

Salmo tapidisma Cuvier and Valenciennes, Hist. Nat. Poiss., XXI, 1848, 365, Kamchatka; on a drawing.

Salmo arabatch Cuvier and Valenciennes, loc. cit., Kamchatka; on a drawing.

Salmo melampterus Cuvier and Valenciennes, loc. cit., Kamchatka; on a drawing.

Fario aurora Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 218; Girard, Pac. R. R. Surv., X, 1858, 308, pl. 68, Astoria, Oreg.

331. *Oncorhynchus tshawytscha* (Walbaum). *Chinook salmon*; *Tchaviche*; *King salmon*; *Columbia River salmon*; *Spring salmon*; *Sacramento River salmon*; *Tyee salmon*; *Tshawytscha*; *Quinnat salmon*.

Alaska, Oregon, and California; southward to Monterey, and to northern China.

Salmo tshawytscha Walbaum, Artedi Pisc., 1792, 71, rivers of Kamchatka; after the *tshawytscha* of Krashenninnikof, Descr. Kamchatka, 1768, 178, and the *tshawytscha* of Pennant, 1792.

Salmo orientalis Pallas, Zoogr. Rosso-Asiat., III, 1811, 367, Kamchatka.

Salmo quinnat Richardson, Fauna Bor.-Amer., III, 1836, 219, Columbia River; and of many writers.

Fario argyreus Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 218, Cape Flattery; Fort Steilacoom.

Salmo confluentus Suckley, Ann. Lyc. Nat. Hist. N. Y., December, 1858, and Pacific R. R. Surv., XII, pt. 2, 1860, 334, Puyallup River near Fort Steilacoom.

Salmo cooperi Suckley, Notices New Spec. N. Amer. Salmon, New York, June, 1861, Okanogan River.

Salmo warreni Suckley, loc. cit., June, 1861, and loc. cit., 1861, 117 (1874) Fraser River, British Columbia.

Salmo richardi Suckley, loc. cit., June, 1861, and loc. cit., 1861, 117, Fraser and Skagit Rivers.

332. *Oncorhynchus kennerlyi* (Suckley).

Lakes of Oregon, Washington, Idaho, British Columbia, Alaska, and Hokkaido. A dwarf landlocked form. Probably several forms should be recognized.

Salmo kennerlyi Suckley, Ann. Lyc. Nat. Hist. N. Y., VII, 1861, 307, Lake Chiloweyuck, Washington.

Genus 135. SALMO Linnæus. Salmon and trout.

Salmo Linnæus, Syst. Nat., ed. X, 1758, 308 (*S. salar* Linnæus); after Artedi.

Trutta Linnæus, loc. cit., 308 (*trutta*, etc.: "*Truttæ corpore variegato*").

Trutta Geoffroy, Descr. de 719 Plantes, etc., 1767, 719 (*Salmo trutta* Linnæus).

Fario Cuvier and Valenciennes, Hist. Nat. Poiss., XXI, 1848, 277 (*Fario argenteus* = *Salmo fario* L.).

Salar Cuvier and Valenciennes, loc. cit., 314 (*Salmo ansonii* = *Salmo fario*).

Trutta Siebold, Süswasserfische Mitteleuropas, 1863, 280 (*Salmo trutta* L.).

Subgenus SALMO Linnæus.

- 333. *Salmo salar* Linnaeus.** *Common Atlantic salmon.*
North Atlantic; ascending all suitable rivers in northern Europe and region north of Cape Cod; formerly abundant in the Hudson and occasional in the Delaware, its northern limit being about lat. 50° N., and southwest Greenland.
Salmo salar Linnaeus, Syst. Nat., ed. X, 1758, 308, seas of Europe.
Salmo mas Walbaum, Artedi Pisc., 1792, 58, Germany; based on "Der Hakelachs" of Bloch; probably not intended as a binomial name.
Salmo gloveri Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 86, Union River, Me.
- 334. *Salmo sebago* Girard.** *Landlocked salmon; Sebago salmon.*
Lakes of Maine, New Hampshire, New Brunswick, and Nova Scotia.
Salmo sebago Girard, Proc. Acad. Nat. Sci. Phila., VI, 1853, 380, Sebago Lake, Me.
- 335. *Salmo ouananiche* McCarthy.** *Ouananiche; Winninush.*
Lake St. John, Saguenay River, and northward.
Salmo salar ouananiche Eugene McCarthy, Forest and Stream, March 10, 1894, 206, and in Jordan and Evermann, Fishes North and Mid. Amer., 1896, 487, Saguenay River, Canada.
- 336. *Salmo mykiss* Walbaum.** *Mykiss; Somka; Kamchatka salmon trout; Mutkichi.*
Kamchatka; probably not occurring in America.
Mykiss Pennant, Arctic Zool., 1792, 126, Kamchatka; after Krashenin-nikof, etc.
Salmo mykiss Walbaum, Artedi Pisc., 1792, 59, Kamchatka; based on *mykiss* of Pennant.
Salmo penshinensis Pallas, Zoogr. Rosso-Asiat., III, 1811, Gulf of Peshin.
Salmo purpuratus Pallas, loc. cit., 374, Bering Sea.
- 337. *Salmo regalis* Snyder.** *Royal silver trout.*
Lake Tahoe.
Salmo regalis Snyder, Bull. U. S. Bur. Fish., XXXII, 1912 (Dec. 31), 26, Lake Tahoe near Brockway, Nev.
- Subgenus TRUTTA Linnaeus.**
- 338. *Salmo clarkii* Richardson.** *Columbia River trout; Cut-throat trout.*
Coastwise streams, from Puget Sound south to Elk River, Humboldt County, California.
Salmo clarkii Richardson, Fauna Bor.-Amer., III, 1836, 225, Cath-lapootl River.
Fario stellatus Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 219, Fort Steilacoom, Shoalwater Bay.
Salmo brevicauda Suckley, Ann. Lyc. Nat. Hist. N. Y., VII, 1861, 308, Puget Sound.
- 339. *Salmo lewisi* (Girard).** *Yellowstone trout; Cut-throat trout.*
Snake River basin above the Shoshone Falls, through Two-Ocean Pass to the headwaters of the Yellowstone and other affluents of the upper Missouri; Yellowstone Lake.
Salmo lewisi Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 219, Falls of Missouri River.
Salmo carinatus Cope, Hayden's Geol. Surv. Mont., 1871 (1872); locality unknown, probably Yellowstone River.
- 340. *Salmo bouvieri* (Bendire).** *Waha Lake trout.*
Waha Lake, Washington.
Salmo purpuratus bouvieri Bendire, in Jordan and Gilbert, Synopsis, 1883, 315, Waha Lake, Wash.
- 341. *Salmo utah* Suckley.** *Cut-throat trout of Utah Lake.*
Lakes and streams west of the Wasatch range, especially in Bear, Provo, Jordan, and Sevier Rivers and in Utah Lake.
Salmo utah Suckley, Monogr. Salmo, 1861 (1874), 136, Utah Lake; pale specimens from the lake.

342. *Salmo gibbsii* Suckley.
Middle Columbia River basin.
Fario tsuppitch Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 218,
Fort Dalles, Oreg.; not of Richardson
Salmo gibbsii Suckley, Ann. Lyc. Nat. Hist. N. Y., VII, 1858, 1, Fort
Dalles; also in the Yakima, John Day, and Boise Rivers; also in the
Columbia at The Dalles, Oreg.
343. *Salmo henshawi* Gill and Jordan. *Lake Tahoe trout*; *Silver trout*; *Truckee trout*; *Pyramid Lake trout*.
Basin of the post-tertiary Lake Lahontan; Lake Tahoe, Pyramid Lake,
Wenemucca Lake, Webber Lake, Donner Lake, Independence Lake,
Truckee River, Humboldt River, Carson River, and most streams of
the eastern slope of the Sierra Nevada; also the headwaters of
Feather River, west of the Sierra Nevada; probably introduced from
Nevada.
Salmo henshawi Gill and Jordan, in Jordan, Man. Vert., ed 2, 1878,
258, Lake Tahoe.
344. *Salmo tahoensis* (Jordan and Evermann). *Great trout of Lake Tahoe*.
Deep waters of Lake Tahoe
Salmo clarkii tahoensis Jordan and Evermann, Fishes North and Mid.
Amer., 1898, 2870, Lake Tahoe.
345. *Salmo jordani* (Meek). *Jordan's trout*; *Spotted trout of Lake Southerland*.
Lake Southerland, west of Puget Sound
Salmo clarkii jordani Meek, Publ., Field Col. Mus., Zool., I, 1897
(1899), 229, Lake Southerland, Wash.
346. *Salmo declivifrons* (Meek). *Salmon trout of Lake Southerland*.
Lake Southerland, west of Puget Sound.
Salmo clarkii declivifrons Meek, Field Col. Mus., Zool., I, 1899, 230,
Lake Southerland, Wash.
347. *Salmo virginalis* (Girard). *Rio Grande trout*.
Upper Rio Grande and southward into the mountains of Chihuahua.
Salar virginalis Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 220,
Utah Creek and at Sangre de Cristo Pass, Colo.
Salmo spilurus Cope, Hayden's Geol. Surv. Mont., 1871 (1872), 470;
Sangre de Cristo Pass, Colo.
348. *Salmo pleuriticus* Cope. *Colorado River trout*.
Colorado River basin.
Salmo pleuriticus Cope, Hayden's Geol. Surv. Mont., 1871 (1872),
471; headwaters of Green River, Wyo.
349. *Salmo stomias* Cope. *Greenback trout*.
Headwaters of Arkansas and Platte Rivers.
Salmo stomias Cope, Hayden's Geol. Surv. Wyo., 1870 (1871), 433;
South Platte River; locality unknown.
350. *Salmo macdonaldi* (Jordan and Evermann). *Yellowfin trout*.
Headwaters of the Arkansas River.
Salmo mykiss macdonaldi Jordan and Evermann, Proc. U. S. Nat.
Mus., XII, 1889 (January 20, 1890), 453, Twin Lakes, Colo.
351. *Salmo crescentis* (Jordan and Beardslee). *Blueback trout of Lake Crescent*.
Crescent Lake, Clallam County, Washington.
Salmo gairdneri crescentis Jordan and Beardslee, Proc. Calif. Acad.
Sci., 2d ser., VI, 1896, 207, pl. 22, Crescent Lake, Clallam County,
Wash.
352. *Salmo bathocetor* Meek. *Long-headed trout of Crescent Lake*.
Deep water of Crescent Lake, Washington.
Salmo bathocetor Meek, Field Col. Mus., Zool., I, 1899, 227, Crescent
Lake, Wash.
353. *Salmo beardslei* (Jordan and Seale). *Speckled trout of Lake Crescent*.
Crescent Lake, Clallam County, Wash.
Salmo gairdneri beardslei Jordan and Seale, Proc. Calif. Acad. Sci.,
2d Ser., VI, 1896, 209, pl. 23, Crescent Lake, Clallam County, Wash.

354. *Salmo eremogenes* Evermann and Nichols.
Streams of central Wash.
Salmo eremogenes Evermann and Nichols, Proc. Biol. Soc. Wash., XXII, June 25, 1909, 93, pl. 2, Crab Creek at Rocky Ford near Ritzville, Wash.
355. *Salmo smaragdus* Snyder. *Emerald trout*.
Truckee Basin, Nev.
Salmo smaragdus Snyder, Bull. U. S. Bur. Fish., XXXV, 1915-16 (Sept. 28, 1917), 80, fig. 9, Pyramid Lake, Nev.
356. *Salmo aquilarum* Snyder. *Eagle Lake trout*.
Lakes of northeastern California.
Salmo aquilarum Snyder, Bull. U. S. Bur. Fish., XXXV, 1915-16 (Sept. 28, 1917), 77, fig. 7, Eagle Lake near mouth of Pine Creek, Modoc Co., Calif.
357. *Salmo irideus* Gibbons. *Rainbow trout*; *Coast range trout*.
Coastwise mountain streams of the Coast Ranges from the northern coast of California southward to San Diego County, Calif.; entering the sea where it grows to 6 or 10 pounds, returning as a steelhead.
Salmo iridia Gibbons, Proc. Calif. Acad. Nat. Sci., I, 1855, 35, San Leandro Creek, Alameda County, Calif.
Salmo rivularis Ayres, loc. cit., 42, Martinez, Calif.; steelhead form.
358. *Salmo gairdnerii* Richardson. *Brook trout of western Oregon to southern Alaska*; *Steelhead*; *Salmon trout*; *Kamloops trout*; *Sit-tse*.
Southern Alaska and Puget Sound to southern Oregon; in streams of the Coast Ranges and the Cascades, descending to the sea as a "steelhead"; perhaps not separable from *Salmo irideus*. Kamloops Lake, Okanogan Lake, and other lakes tributary to Frazer River or to the upper Columbia.
Salmo gairdnerii Richardson, Fauna Bor.-Amer., III, 1836, 221, Columbia River at Fort Vancouver.
Salmo masoni Suckley, Pac. R. R. Surv., XII, part 2, 1860, 345, Cathlapootle River.
Salmo truncatus Suckley, Ann. Lyc. Nat. Hist. N. Y., VII, 1862, 3, New Dungeness, straits of Fuca.
Oncorhynchus kamloops Jordan, Forest and Stream, XXXIX, No. 19, November 10, 1892, 405, Kamloops Lake, British Columbia.
359. *Salmo shasta* (Jordan). *McCloud River rainbow trout*; *Rainbow trout of fish culturists*.
Streams of the Sierra Nevada from Mount Shasta southward; known from McCloud River; the limits of its range not well known. Introduced into the Truckee River and many eastern streams, as well as in Europe and New Zealand.
Salmo irideus or rainbow trout of most writers and especially of fish-culturists; not *Salmo irideus* Gibbons, which is based on coastwise specimens.
Salmo gairdneri shasta Jordan, Thirteenth Biennial Rept. Calif. Fish Com., 1894, 142, with plate; McCloud River at Baird, Shasta County, Calif.
360. *Salmo stonei* (Jordan). *Nissuee trout*; *No-shee trout*.
McCloud River and upper Sacramento River.
Salmo gairdneri stonei Jordan, Thirteenth Biennial Rept. Calif. Fish Com., 1894, 142, with plate; McCloud River at Baird, Calif.; perhaps a variant of *Salmo shasta*.
361. *Salmo newberrii* Girard.
Klamath River.
Fario or *Salmo newberrii* Girard, Proc. Acad. Nat. Sci. Phila., X, 1858, 225; new name for fish misidentified and described as "*Salmo gairdneri* Richardson" in Pacific R. R. Survey, X, 1859, 313, Pl. LXXI, figs. 1-4, Klamath River, Oreg.
362. *Salmo gilberti* (Jordan). *Kern River trout*.
Kern River, Calif.
Salmo gairdneri gilberti Jordan, Thirteenth Biennial Rept. Calif. Fish Com., 1894, 143, with plate; Kern River at Soda Springs, Calif.

363. *Salmo rosei* Jordan and McGregor. *Rose trout*.
Certain headwaters of Kern River, Calif.
Salmo rosei Jordan, Proc. Acad. Nat. Sci. Phila., LXXVI, 1924, 19,
Pl. II, Lake Culver, Calif., and neighboring lakes.
364. *Salmo agua-bonita* (Jordan). *Golden trout of south fork of Kern River*.
South fork of Kern River, Calif.; introduced into Cottonwood Lakes,
east of Mount Whitney.
Salmo mykiss agua-bonita Jordan, Proc. U. S. Nat. Mus., XV, 1892,
481, "Volcano or Whitney Creek, California," by error; the original
type came from the Cottonwood Lakes on the east side of Mount
Whitney, into which the species had been introduced from the south
fork of Kern River. This species does not occur in Volcano Creek
nor in Whitney Creek.
365. *Salmo whitei* Evermann. *Golden trout of western tributaries of Kern
River; Stewart White trout*.
Western tributaries of Kern River, Calif.
Salmo whitei Evermann, Bull. U. S. Bur. Fish., XXV, 1905 (May 19,
1906), 20, Pl. XVI; south fork of Kaweah River, Calif., into which
the species had been transplanted from Coyote Creek, a western
tributary of Kern River.
366. *Salmo roosevelti* Evermann. *Golden trout of Volcano Creek; Roosevelt
trout; Volcano Creek trout*.
Native only to Volcano Creek, an eastern tributary of Kern River,
Calif.
Salmo roosevelti Evermann, Bull. U. S. Bur. Fish., XXV, 1905 (May 19,
1906), 26, Pl. I, Volcano Creek, Kern River Basin, Calif.
367. *Salmo evermanni* Jordan and Grinnell. *San Bernardino trout; Evermann's
trout*.
Headwaters of Santa Ana River, Calif., above the falls.
Salmo evermanni Jordan and Grinnell, Proc. Biol. Soc. Wash., XXI,
1908, 31, Pl. II, south fork of the Santa Ana River, Calif., at 8,200
feet altitude.
368. *Salmo nelsoni* Evermann. *Lower California trout; Nelson's trout*.
Mountain streams of northern Lower California.
Salmo nelsoni Evermann, Proc. Biol. Soc. Wash., XXI, 1908, 26, Pl. I,
San Ramon River, San Pedro Martir Mountains, Lower California.
- Genus 136. CRISTIVOMER Gill and Jordan. *Great Lakes trout*.
Cristivomer Gill and Jordan, in Jordan, Man. Vert., ed. 2, 1878, 356.
(*Salmo namaycush* Walbaum).
369. *Cristivomer namaycush* (Walbaum). *Great Lakes trout; Mackinaw
trout; Longue (Vermont); Togue (Maine); Namaycush; Masamacush*.
Great Lakes region and lakes of northern New York, New Hampshire,
and Maine; headwaters of Columbia and Fraser Rivers; streams of
Vancouver Island, and north to the Arctic Circle.
Namaycush salmon Pennant, Arctic Zool., 1792, 191, Hudson Bay.
Salmo namaycush Walbaum, Artdi Pisc., 1792, 68, Hudson Bay; based
on the *Namaycush salmon* of Pennant.
Salmo pallidus Rafinesque, Amer. Month. Mag., December, 1817,
120, Lake Champlain.
Salmo amethystinus Mitchell, Jour. Acad. Nat. Sci. Phila., I, 1818, 410,
Sault Ste. Marie.
Salmo confinis DeKay, N. Y. Fauna: Fishes, 1842, 238, Louis Lake,
Hamilton County, N. Y.; Silver Lake, Pa.
Salmo symmetricus Prescott, Am. Jour. Sci. Arts, XI, 1851, 340, Lake
Winnepiseogee, N. H.
Salmo toma Hamlin, The Togue, in Holmes, 2d Ann. Rept., Maine
Fish Com., 1862, 109; lakes of Maine.
Salmo adirondacus Norris, Amer. Angler's Book, 1865, 255; Adirondack
lakes.

370. Cristivomer siscowet (Agassiz). *Siscowet*.

Lake Superior, in deep water, where it feeds on the fat ciscoes; a deep-water variant of *C. namaycush*.

Salmo siscowet Agassiz, Lake Superior, 1850, 333, Lake Superior.

Salmo siskawitz Agassiz, in Herbert Frank Forester's Fish and Fishing, 1850, 112, with plate; Lake Superior.

Salmo ursinus Barnston, Rept. Fish. Canada, Lake Superior; reference uncertain.

Genus 137. SALVELINUS Richardson. *Charrs*.

Salvelini Nilsson, Prodr. Ichth. Scand., 1832, 7 (*alpinus*); group name.

Salvelinus Richardson, Fauna Bor.-Amer., III, 1836, 169 (*Salmo salvelinus* L.); after Nilsson.

Baione DeKay, N. Y. Fauna: Fishes, 1842, 244 (*B. fontinalis* DeKay).

Umbla Rapp, Fische Bodensees, 1854, 32 (*Salmo umbla*=*alpinus* L.).

371. Salvelinus fontinalis (Mitchill). *Brook trout*; *Speckled trout*; *Eastern brook trout*.

Maine to the Saskatchewan and northward to Labrador, southward in the Alleghenies to headwaters of the Savannah, Chattahoochee, Catawba, and French Broad Rivers; largely introduced into western streams but not native west of the Mississippi except in Minnesota and Iowa. Some unnamed variants included.

Salmo fontinalis Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 435, near New York City.

Salmo alleghaniensis Rafinesque, Ichth. Ohiensis, 1820, 44, brooks falling into the Allegheny and Monongahela Rivers.

Salmo nigrescens Rafinesque, Ichth. Ohiensis, 1820, 45, near the Laurel Hills, Pa.

Salmo canadensis Hamilton Smith, in Griffith's Cuvier, X, 1834, 474, Canada; dots blood red, each "in white circular spot"

Salmo hudsonicus Suckley, Ann. Lyc. Nat. Hist. N. Y., VII, 1861, 310, Hudson Bay and tributaries; Labrador; Newfoundland.

372. Salvelinus agassizii Garman. *Dublin Pond trout*.

Dublin Pond, N. H.

Salmo agassizii Garman, Nineteenth Rept., Mass. Fish Com., 1885, 20, Dublin Pond (Lake Monadnock), N. H.; Center Pond, N. H.

373. Salvelinus timagamensi Henn and Rinkenbach. *Aurora trout*.

White Pine Lake, Clearwater Lake, Timigami region, Ontario, of the St. Lawrence Basin.

Salvelinus timagamensis Henn and Rinkenbach, Ann. Carnegie Mus., XVI, 1925, 131, figs. 1, 2, and 3; White Pine Lake.

374. Salvelinus aureolus Bean. *Sunapee trout*; *American saibling*; *Golden trout of Sunapee Lake*.

Sunapee Lake, N. H.; Dan Hole Pond, Carroll County, N. H., tributary to Saco River; and Floods Pond, Otis, Me., tributary to Union River; also in Averill Pond, Vt.

Salvelinus aureolus Bean, Proc. U. S. Nat. Mus., X, 1887, 628, Sunapee Lake, N. H.

375. Salvelinus rossii (Richardson). *Ross's arctic salmon*.

Lakes of Greenland and Boothia Felix.

?*Salmo hearneri* Richardson, Franklin's First Voy. 1823, 706, and in Fauna Bor.-Amer., III, 1836, 167, Bloody Fall, Coppermine River, Lat. 67°; not certainly recognizable, description imperfect.

Salmo rossii Richardson, App. Ross's Voy., LVI, 1835; and in Fauna Bor.-Amer., III, 1836, 163, Regent's Inlet, Boothia Felix.

Salmo alipes Richardson, loc. cit., LVII, 1835, and in Fauna Bor.-Amer., III, 1836, 169, Lakes in Regent's Inlet, Boothia Felix.

Salmo nitidus Richardson, loc. cit., LVII, 1835, and Fauna Bor.-Amer., 1836, 171; Lake of Boothia Felix.

376. Salvelinus stagnalis (Fabricius). *Greenland charr*.

Waters of Greenland, Boothia, and neighboring regions.

Salmo stagnalis Fabricius, Fauna Grœnlandica, 1780, 175; Alpine ponds of Greenland; not migratory.

Salmo rivalis Fabricius, loc. cit., 176, Alpine brooks of Greenland; not entering the sea.

Salmo immaculatus H. R. Storer, Jour. Bost. Soc. Nat. Hist., VI, 1850, 364, lower St. Lawrence; Canadian "salmon trout." Name preoccupied. Sea-run forms.

377. *Salvelinus naresi* (Günther). Lakes of Arctic America, Discovery Bay, and Cumberland Gulf.
Salmo naresi Günther, Proc. Zool. Soc. Lond., 1877, 476, plate, fresh-water lakes near Discovery Bay.
378. *Salvelinus arcturus* (Günther). *Arctic charr*.
Victoria Lake and Flocberg Beaches of Arctic America, latitude 82° 34'.
Salmo arcturus Günther, Proc. Zool. Soc. Lond., 1877, 294, Pl. XXXII, Victoria Lake, Flocberg Beach
379. *Salvelinus malma* (Walbaum). *Malma trout*.
Waters of Kamchatka and Alaska, everywhere abundant; descending to the sea; apparently intergrading southward with *Salvelinus spectabilis*.
Salmo malma Walbaum, Artdi Pisc., 1792, 66, Kamchatka; based on *Malma* of Pennant.
Salmo curilus Pallas, Zoogr. Rosso-Asiat., III, 1811, 251, Curile Islands.
Salmo collaris Pallas, loc. cit., 353, Bering Sea.
Salmo lævigatus Pallas, loc. cit., 385, Curile Islands.
Salmo nummifer Cuvier and Valenciennes, Hist. Nat. Poiss., XXI, 1848, 365, Kamchatka; on a drawing by Mertens.
Salmo erythrorhynchus Cuvier and Valenciennes, loc. cit., 367, Kamchatka.
Salmo tudes Cope, Proc. Amer. Phil. Soc. Phila., XIII, 1873, 24, Captains Harbor, Unalaska.
Salmo pluvius Hilgendorf, Mitth., Deutsch. Ges. Ostasiens, XI, 1876, 25; clear streams throughout Japan.
380. *Salvelinus malma spectabilis* (Girard). *Dolly Varden trout*; *Oregon charr*; *Bull trout*; *Red-spotted trout*; *Golet*.
Streams west of the Cascade Range, from the upper Sacramento to Montana and Alaska; in the Columbia basin as far up as Montana and Idaho.
Salmo spectabilis Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 218; Fort Dalles, Oreg.
Salmo bairdii Suckley, loc. cit., 309, tributary of Flathead River, Mont.
Salmo parkei Suckley, Ann. Lyc. Nat. Hist. N. Y., VII, 1861, 309, Kootenay River.
Salmo campbelli Suckley, loc. cit., 313, Fort Dalles, Oreg.; substitute for *spectabilis*, preoccupied in *Fario*, not in *Salmo* or *Salvelinus*.
Salmo lordii Günther, Cat., VI, 1866, 148, Skagit River; dwarf specimens.
381. *Salvelinus oquassa* (Girard). *Oquassa trout*; *Blueback trout*; *Quasky*.
Rangeley Lakes, western Maine.
Salmo oquassa Girard, Proc. Bost. Soc. Nat. Hist., IV, 1854, 262, Oquassa or Oquossoc Lake, Me.
382. *Salvelinus marstoni* (Garman). *Lac de Marbre trout*; *Marston trout*.
Salmo marstoni Garman, Science, July 14, 1893, Lac de Marbre, Ottawa County, Quebec.

Family 48. COREGONIDÆ. Whitefishes

Genus 138. STENODUS Richardson. *Inconnu*.

Stenodus Richardson, in Back's Narrative Arctic Land Exped., back append., 1836, 521 (*Salmo mackenzii* Richardson).

383. *Stenodus mackenzii* (Richardson). *Inconnu*.

Delta of MacKenzie River.

Salmo mackenzii Richardson, Franklin's Jour., 1823, 707, MacKenzie River.

Genus 139. LEUCICHTHYS Dybowski. *Lake herrings and ciscoes*.

Argyrosomus Agassiz, Lake Superior, 1850, 330 ("*clupeiformis*" of DeKay, not of Mitchill=*Salmo harengus* Rich); not of M. de la Pylaie, which is *Sciæna aquila* Cuvier.

Leucichthys Dybowski, Fische Baikal-Wassersysteme, Verk. KK. Zool.-Bot. Gesell. Wien, Bd. XXIV, 1874, 300 (*Salmo omul* Pallas).
Allosomus Jordan, Man. Vert., ed. 2, 1878, 361 (*Coregonus tullibee* Richardson).

Thrissomimus Gill, in Jordan and Evermann, Bull. U. S. Bur. Fish., XXIX, 1909 (1911), 3 (*Coregonus artedi* LeSueur).
Cisco Jordan and Evermann, Bull. U. S. Bur. Fish., XXIX, 1909 (1911), 3 (*Argyrosomus nigripinnis* Gill).

Subgenus **THRISOMIMUS** Gill.

384. *Leucichthys harengus* (Richardson). *Saginaw Bay herring*; *Georgian Bay herring*.
 Shallow bays of Lakes Huron and Michigan; Georgian Bay, Saginaw Bay, Green Bay, etc.
Salmo (*Coregonus*) *harengus* Richardson, Fauna Bor.-Amer., III, 1836, 210, Pl. XC, fig. 2; Georgian Bay at Penetanguishene, Ontario.
Coregonus clupeiformis Agassiz, Lake Superior, 1850, 339, the Pic; Shallow Bays, Michipicoten Island; not *clupeiformis* of Mitchill.
Coregonus albus Agassiz, loc. cit., p. 342, the Pic; not of LeSueur.
385. *Leucichthys osmeriformis* (Smith). *Seneca Lake herring*; *Seneca Lake smelt*.
 Lakes of central New York, tributary to Lake Ontario.
Coregonus hoyi Bean, Proc. U. S. Nat. Mus., V, 1882, 658; not of Gill,
Coregonus osmeriformis Smith, Bull. U. S. Fish. Com., XIV, 1894, Pl. I, II, Seneca Lake, Skaneateles Lake, N. Y.
386. *Leucichthys sisco* (Jordan). *Cisco of Lake Tippecanoe*.
 Small lakes of Wisconsin and northern Indiana.
Argyrosomus sisco Jordan, Amer. Nat., 1875, 135, Lake Tippecanoe near Warsaw, Ind.
387. *Leucichthys sisco huronius* (Jordan and Evermann). *Lake Huron herring*; *Blueback or Michigan herring*.
 Lakes Huron and Michigan. The common form from which *L. sisco* is derived.
Argyrosomus huronius Jordan and Evermann, Proc. U. S. Nat. Mus., XXXVI, March 3, 1909, 167, fig. 2, Port Stanley, Ontario.
388. *Leucichthys ontariensis* Jordan and Evermann.
 Lake Ontario and Cayuga Lake, N. Y.
Coregonus clupeiformis DeKay, New York Fauna: Fishes, 1842, 248, pl. 60, fig. 198, Lake Ontario; not *clupeiformis* of Mitchill.
Leucichthys ontariensis Jordan and Evermann, Bull. U. S. Bur. Fish., XXIX, 1909 (1911), 13, Lake Ontario and Cayuga Lake, N. Y.
389. *Leucichthys lucidus* (Richardson). *Great Bear Lake herring*.
 Mackenzie River and tributaries; Great Bear Lake and River.
Salmo (*Coregonus*) *lucidus* Richardson, Fauna Bor.-Amer., III, 1836, 207, Pl. XC, fig. 1, with figure, Great Bear Lake.
390. *Leucichthys laurettae* (Bean). *Lauretta whitefish*.
 Lakes and streams of northern and western Alaska.
Coregonus laurettae Bean, Proc. U. S. Nat. Mus., IV, 1881, 156, Point Barrow, Alaska.
391. *Leucichthys alascanus* (Scotfield). *Arctic lake herring*.
Argyrosomus alascanus Scotfield, in Jordan and Evermann, Fish. North and Mid. Amer., 1898, 2817, northern Alaska near Bering Straits.
392. *Leucichthys pusillus* (Bean). *Least lake herring*.
 Lakes of Yukon basin and Alaska generally.
Coregonus pusillus Bean, Proc. U. S. Nat. Mus., XI, 1888, 526, Kobuk River, Alaska.
393. *Leucichthys athabascæ* Harper and Nichols. *Athabasca herring*.
 Saskatchewan River.
Leucichthys athabascæ Harper and Nichols, Bull. Amer. Mus. Nat. Hist., XLI, 1919, 269, Saskatchewan River.
394. *Leucichthys macrognathus* Harper and Nichols. *Mackenzie River herring*.
 Mackenzie River.
Leucichthys macrognathus Harper and Nichols, Bull. Amer. Mus. Nat. Hist., XLI, 1919, 269, Mackenzie River.

395. *Leucichthys entomophagus* Harper and Nichols.
Mackenzie River.
Leucichthys entomophagus Harper and Nichols, Bull. Amer. Mus. Nat. Hist., XLI, 1919, 267, Mackenzie River.
396. *Leucichthys gemmifer* Snyder. *Cisco of Lake Bonneville*.
Bear River Basin.
Leucichthys gemmifer Snyder, Bull. U. S. Bur. Fish., XXXVI, 1817-18 (May 7, 1919), 4, Bear Lake, near Fish Haven, Idaho.
397. *Leucichthys artedi* (LeSueur). *Lake herring; Erie herring; Common lake herring; Grayback*.
Lake Erie and Lake St. Clair; Lake Huron at Port Huron.
Coregonus artedi LeSueur, Jour. Acad. Nat. Sci. Phila., I, 1818, 231, Lake Erie (at Buffalo) and Niagara River (Lewiston).
398. *Leucichthys artedi bisselli* (Bollman). *Rawson Lake herring; Bissell's herring*.
Glacial lakes of southern Michigan once tributary to Lake Erie.
Coregonus tullibee bisselli Bollman, Bull. U. S. Fish Com., VIII, 1888, 223, Rawson Lake and Howard Lake, Mich.
399. *Leucichthys eriensis* (Jordan and Evermann). *Jumbo herring; Erie great herring*.
Lake Erie and Lake Huron.
Argyrosomus eriensis Jordan and Evermann, Proc. U. S. Nat. Mus., XXXVI, March 3, 1909, 165, fig. 1, Lake Erie at Port Stanley.
400. *Leucichthys reighardi* Koelz.
Lake Michigan.
Leucichthys reighardi Koelz, Occ. Papers, Mus. Zool. Univ. Mich., No. 146, March 22, 1924, 5; Lake Michigan 18 miles off Michigan City, Ind.
401. *Leucichthys alpenae* Koelz.
Lake Michigan and Lake Huron, including Georgian Bay.
Leucichthys alpenae Koelz, Occ. Papers, Mus. Zool. Univ. Mich., No. 146, I, March 22, 1924; Lake Michigan off Isle aux Galets.
- Subgenus CISCO Jordan and Evermann.
402. *Leucichthys supernas* Jordan and Evermann. *Cisco of Lake Superior*.
Deep waters of Lake Superior.
Leucichthys supernas Jordan and Evermann, Bull. U. S. Bur. Fish., XXIX, 1909 (1911), 22, Lake Superior.
403. *Leucichthys prognathus* (H. M. Smith). *Cisco of Lake Ontario; Ontario longjaw; Bloater; Chub*.
Deep waters of Lake Ontario, in depths of 60 fathoms and more
Coregonus prognathus Smith, Bull. U. S. Fish Com., XIV, 1894, 4, pl. 1, fig. 3, Lake Ontario at Wilson, N. Y.
404. *Leucichthys johannae* (Wagner). *Lake Michigan cisco; Bloater of Lake Michigan*.
Northwestern part of Lake Huron in deep water, and also for the whole length of Lake Michigan.
Argyrosomus johannae Wagner, Science, N. S., XXXI, No. 807, June 17, 1910, 957-958; Lake Michigan in about 25 fathoms, some 18 miles off Racine, Wis.
405. *Leucichthys nigripinnis* (Gill). *Blackfin of Lake Michigan*.
Deep waters of Lake Michigan and certain small lakes in Wisconsin.
Argyrosomus nigripinnis Gill, in Hoy, Trans. Wis. Acad. Sci., I, 1872, 100, Lake Michigan off Racine; name only.
Coregonus nigripinnis Jordan, Man. Vert., ed. 2, 1878, 275; description.
406. *Leucichthys cyanopterus* Jordan and Evermann.
Deep waters of Lake Superior.
Leucichthys cyanopterus Jordan and Evermann, Bull. U. S. Bur. Fish., XXIX, 1909 (1911), 27, fig. 13, Lake Superior, off Marquette, Mich.

407. *Leucichthys hoyi* (Gill). *Cisco of Lake Michigan; Kiyi; Chub; Mooneye cisco.*
Lake Michigan in deep water.
Argyrosomus hoyi Gill, in Hoy, Trans. Wis. Acad. Sci., I, 1872, 100,
Lake Michigan off Racine; no description.
Argyrosomus hoyi Gill, in Jordan, Amer. Nat., March, 1875, 135, Lake
Michigan off Racine, Wis.; description same specimens.
408. *Leucichthys kiyi* Koelz. *Kiyi; Mooneye; Waterbelly.*
Lake Michigan.
Leucichthys kiyi Koelz, Occ. Papers, Mus. Zool. Univ. Mich., No. 104,
Dec. 31, 1921; Lake Michigan, 12 miles E. by S. of the mouth of
Sturgeon Bay ship channel in about 60 fathoms.
409. *Leucichthys birgei* Wagner. *Cisco of Green Lake.*
Green Lake, Wisconsin.
Leucichthys birgei Wagner, Bull. Wis. Nat. Hist. Soc., IX, 1911, 73,
Green Lake, Wis., 28 meters below the surface.
410. *Leucichthys zenithicus* (Jordan and Evermann). *Longjaw of Lake Superior.*
Lake Superior, in deep water; possibly in other lakes.
Argyrosomus hoyi Milner, Rept. U. S. Fish Com., II, 1872-73 (1874),
86, Lake Superior at Outer Island, Wis.; not of Gill, Hoy, or Jordan,
and not original type.
Argyrosomus zenithicus Jordan and Evermann, Proc. U. S. Nat.
Mus., XXXVI, March 3, 1909, 169, fig. 3, Lake Superior between
Duluth and Isle Royale.

Subgenus ALLOSOMUS Jordan.

411. *Leucichthys manitoulinus* Jordan and Evermann. *Manitoulin tullibee.*
North channel of Lake Huron, and probably lakes of Minnesota.
Argyrosomus tullibee, Evermann and Smith, Rept. U. S. Fish Com., XX,
1894, 320, pl. 28: in part, the plate being tullibee.
Leucichthys manitoulinus Jordan and Evermann, Bull. U. S. Bur. Fish.,
XXIX, 1909, 31, fig. 16, Blind River, North channel, Lake Huron.
412. *Leucichthys tullibee* (Richardson). *Tullibee; Tulip.*
Lake Winnipeg Basin, perhaps entering Lake Superior Basin.
Salmo (Coregonus) tullibee Richardson, Fauna Bor.-Amer., III, 1836,
201, Cumberland House, Pine Island Lake, near Lake Winnipeg.
Leucichthys nipigon Koelz, Occ. Papers Mus. Zool. Univ. Mich., No.
158, April 6, 1925; Lake Nipigon, Lake Winnipeg.

Genus 140. COREGONUS Linnæus. *Whitefishes; Lavarets.*

- Coregonus* Artedi, Genera Pisc., 1738, 9.
Coregoni Linnæus, Syst. Nat., Ed. X, 1758, 310 (*Salmo lavaretus* L.).
Tripteronotus Lacépède, Hist. Nat. Poiss., V, 1803, 48 (*T. havutin*
Lacépède = *Salmo lavaretus* L.).
Coregonus Lacépède, loc. cit., X, 263 (*Salmo lavaretus* L.).
Coregonus Cuvier, Règne Anim. Ed. I, 1817, 162 (*thymallus, lavaretus*,
etc.).
413. *Coregonus clupeaformis* (Mitchill). *Whitefish; Labrador whitefish;*
Lake Superior whitefish; Manitoba whitefish; Musquaw River white-
fish; Whiting of Lake Winnepesaukee; Shad of Lake Champlain.
Great Lakes, excepting Lake Erie; and neighboring waters.
Salmo clupeaformis Mitchill, Amer. Month. Mag., II, 1818, 321, Falls
of St. Mary, northern extremity of Lake Huron.
Salmo otsego Clinton, account of the *Salmo otsego* or the Otsego basse,
1822, 1, with plate, Otsego Lake.
Coregonus labradoricus Richardson, Fauna Bor.-Amer., III, 1836, 206,
Musquaw River, Labrador.
Salmo (Coregonus) sapidissimus Agassiz, Lake Superior, 1850, 344,
Lake Superior.
Salmo labror Agassiz, loc. cit., 348, Lake Superior.
Coregonus neohantoni Prescott, Amer. Jour. Sci. Arts, XI, 1851, 343,
Lake Winnepesaukee, N. H.
? *Coregonus richardsonii* Günther, Cat., VI, 1866, 185, Arctic America.

414. *Coregonus clupeaformis albus* (LeSueur). *Lake Erie whitefish; Common whitefish.*
Lake Erie and Lake St. Clair; Lake Ontario and various lakes to western New York and New Hampshire. New York; probably not separable from *Coregonus clupeaformis*, although local differences appear.
Coregonus albus LeSueur, Jour. Acad. Nat. Sci. Phila., I, 1818, 232, Lake Erie.
415. *Coregonus nelsonii* Bean. *Humpback whitefish, Nelson's whitefish.*
Alaska, from Bristol Bay northward.
Coregonus nelsonii Bean, Proc. U. S. Nat. Mus., VII, 1884, 48, Nulato, Alaska.
- Genus 141. PROSOPIUM Milner.
Prosopium Milner, in Jordan, Man Vert., ed. 2, 1878, 361 (*Coregonus quadrilaterals* Richardson).
416. *Prosopium quadrilaterale* (Richardson). *Menominee whitefish; Pilotfish; Round whitefish; Shadwarter.*
Alaska and upper Great Lakes to New England, in lakes.
Coregonus quadrilaterals Richardson, Franklin's Narrative, 1823, 714, Pl. XXV, fig. 2, Fort Enterprise, British America.
Coregonus novæ-angliæ Prescott, Amer. Jour. Sci. Arts, XI, 1851, 342, Lake Winnepesaukee, N. H.
417. *Prosopium kennicotti* (Milner). *Kennicott's whitefish.*
Mackenzie River, Canada; Yukon River and other streams of the Alaska region; Lake Bennett, Alaska.
Coregonus kennicotti Milner, in Jordan and Gilbert, Synopsis, 1883, 298, Fort Good Hope, British America.
418. *Prosopium preblei* (Harper and Nichols).
Mackenzie River, Canada.
Coregonus preblei Harper and Nichols, Bull. Amer. Mus. Nat. Hist., XLI, 1919, 266, Pl. XV, fig. 2, Mackenzie River.
419. *Prosopium stanleyi* (Kendall). *Stanley's whitefish.*
Lakes of northern Maine.
Coregonus stanleyi Kendall, Bull. U. S. Fish Com., XXII, 1902 (1904), 366, with figure, thoroughfare between Mud and Cross Lakes, Aroostook County, Me.
420. *Prosopium williamsoni* (Girard). *Rocky Mountain whitefish.*
Rivers of Sierra Nevada and west slope of the Rocky Mountains, from the Fraser and the Columbia to the Truckee and other streams of the Lahontan Basin of Nevada; abundant, especially in lakes of northern Idaho, western Montana, Washington, and Utah.
Coregonus willamsoni Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 136, Des Chutes River, Oreg.
421. *Prosopium williamsoni cismontanum* (Jordan). *Yellowstone whitefish.*
Streams of the Rocky Mountain region tributary to the upper Missouri.
Coregonus willamsoni cismontanum Jordan, Bull. U. S. Fish Com., IX, 1889, 49, pl. 9, figs. 8, 9, Horsethief Creek, Madison River, Mont.
Hardly distinct from *P. willamsoni*.
422. *Prosopium coulteri* (Eigenmann and Eigenmann). *Coulter's whitefish.*
Headwaters of the Columbia.
Coregonus coulteri Eigenmann and Eigenmann, Amer. Nat., Nov., 1892, 961, Kicking Horse River at Field, British Columbia.
423. *Prosopium couesi* (Milner).
Headwaters of Saskatchewan River.
Coregonus couesi Milner, Rept U. S. Fish Com., II, 1872-73 (1874), 88, Chief Mountain Lake, Mont.
424. *Prosopium spilonotus* (Snyder). *Bonneville whitefish.*
Bear River Basin.
Coregonus spilonotus Snyder, Bull. U. S. Bur. Fish., XXXVI, 1917-18 (May 7, 1919), 6, Bear Lake, near Fish Haven, Idaho.

425. *Prosopium abyssicola* (Snyder). *Bear Lake whitefish*.
 Bear Lake, Idaho.
Coregonus abyssicola Snyder, Bull. U. S. Bur. Fish., XXXVI, 1917-18
 (May 7, 1919), 8, Bear Lake, near Fish Haven, Idaho.
- Genus 142. **IRILLION** Jordan.
Irillion Jordan, Proc. Acad. Nat. Sci. Phila., LXX, 1918, 342 (*Coregonus oregonius* Jordan and Snyder).
426. *Irillion oregonius* (Jordan and Snyder). *Chiselmouth jack*.
 Mountain streams of Oregon tributary to the Columbia.
Coregonus oregonus Jordan and Snyder, Proc. U. S. Nat. Mus., XXXVI,
 1911, 425, with fig., McKenzie River, Ore.

Family 49. THYMALLIDÆ. Graylings

- Genus 143. **THYMALLUS** Cuvier. *Graylings*.
Thymallus Cuvier, Règne Anim., ed. 2, II, 1829, 306 (*Salmo thymallus* Linnaeus); not *Thymalus* Latreille, 1802, a genus of *Coleoptera*.
Choregon Minding, Lehrbuch Naturgesch. Fische, 1832, 119 (*Salmo thymallus* L.) substitute for *Thymallus*, regarded as preoccupied.
Orthocolus Gistel, Thierreich, 1848, XI, 1838 (*Salmo thymallus* L.); substitute for *Thymallus*, regarded as preoccupied.
427. *Thymallus signifer* (Richardson). *Arctic grayling; Poisson bleu*.
 Mackenzie River to Alaska and the Arctic Ocean.
Coregonus signifer Richardson, Franklin's Jour., 1823, 711; Winter Lake near Fort Enterprise.
Coregonus thymalloides Richardson, Fauna Bor.-Amer., III, 1836, 714, Winter River.
428. *Thymallus tricolor* Cope. *Michigan grayling*.
 Streams of northern Michigan; formerly abundant in Au Sable River, Jordan River, and other streams in the southern peninsula, and Otter Creek, near Keweenaw, in the northern peninsula.
 ?*Thymallus ontariensis* Cuvier and Valenciennes, Hist. Nat. Poiss., XXI, 1848, 452; said to have been brought by Milbert from Lake Ontario; most likely from Lake Geneva, Switzerland.
Thymallus tricolor Cope, Proc. Acad. Nat. Sci. Phila., XVII, 1865, 80, Au Sable River, Mich.
429. *Thymallus montanus* Milner. *Montana grayling*. A hardy and attractive aquarium fish.
 Madison and Gallatin Rivers, Montana.
Thymallus montanus Milner, Rept. U. S. Fish Com., II, 1872-73 (1874), 741, tributary of Missouri River at Camp Baker.

Family 50. OSMERIDÆ. Smelts

- Genus 144. **MALLOTUS** Cuvier. *Capelins*.
Mallotus Cuvier, Règne Anim., ed. 2, II, 1829, 305 (*Clupea villosa* Muller).
430. *Mallotus villosus* (Müller). *Capelin; Lodde*.
 Arctic America, south to Cape Cod and southern Alaska; Kamchatka.
Clupea villosa Muller, Prodr. Zool. Dan., 1777, 245, Greenland.
Salmo arcticus Fabricius, Fauna Grœnlandica, 1780, 177, Greenland.
Salmo grœnlandicus Bloch, Ichthyologie, VIII, 1794, pl. 99, Greenland.
Salmo socialis Pallas, Zoogr. Ross-Asiat., III, 389, islands between Asia and America.
Osmerus macrodon Cuvier and Valenciennes, Hist. Nat. Poiss., XXI, 1848, 385, no locality.
- Genus 145. **THALEICHTHYS** Girard. *Eulachon*.
Thaleichthys Girard, Pac. R. R. Surv., X, 1858, Fishes, 325 (*T. stevensi* Girard=*Salmo (Mallotus) pacificus* Richardson).
431. *Thaleichthys pacificus* (Richardson). *Eulachon; Candlefish; Oolachan*.
 Oregon to Alaska.
Salmo (Mallotus) pacificus Richardson, Fauna Bor.-Amer., III, 1836, 226, Columbia River.
Thaleichthys stevensi Girard, Pac. R. R. Surv., X, 1858, 325, pl. 75, figs. 1-4, Puget Sound.

432. *Thaleichthys albatrossis* (Jordan and Gilbert). *Kodiak smelt*.
Off Kodiak Island, Alaska.
Osmerus albatrossis Jordan and Gilbert, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2823, Kodiak Island; probably not distinct from *Thaleichthys pacificus*.
- Genus 146. *SPIRINCHUS* Jordan and Evermann.
Spirinchus Jordan and Evermann, Fishes North and Mid. Amer., I, 1896, 522 (*Osmerus thaleichthys* Ayres).
433. *Spirinchus thaleichthys* (Ayres).
Pacific coast of America from San Francisco northward to Bristol Bay, Alaska.
Osmerus thaleichthys Ayres, Proc. Calif. Acad. Nat. Sci., II, 1860, 62, San Francisco.
- Genus 147. *ALLOSMERUS* Hubbs.
Allosmerus Hubbs, Proc. Biol. Soc. Wash., XXXVIII, 1925, 53 (*Osmerus attenuatus* Lockington).
434. *Allosmerus attenuatus* (Lockington).
Coast of California, from San Francisco northward.
Osmerus attenuatus Lockington, Proc. U. S. Nat. Mus., III, 1880, 66, San Francisco.
- Genus 148. *OSMERUS* Lacépède. *Smelts*.
Osmerus Lacépède, Hist. Nat. Poiss., V, 1803, 229 (*Salmo eperlanus* L.).
Eperlanus Gaimard, Voy. Island and Greenland, 1851 (*Salmo eperlanus* L.).
435. *Osmerus dentex* Steindachner. *Rainbow herring*.
Coast of Alaska and south on the Asiatic coast to northern China.
Osmerus dentex Steindachner, Sitzungsber. Kais. Akad. Wiss. Wien, LXI, 1870, 429, northern China.
436. *Osmerus mordax* (Mitchill). *American smelt; Icefish*.
Atlantic coast of United States, from Virginia northward to Gulf of St. Lawrence; Lakes Champlain and Memphremagog.
Atherina mordax Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 446, New York.
Osmerus viridescens LeSueur, Jour. Acad. Nat. Sci. Phila., I, 1818, 230, coast of Maine.
437. *Osmerus mordax spectrum* (Cope). *Wilton smelt*.
Wilton Pond, Kennebec County, Me.
Osmerus spectrum Cope, Proc. Amer. Phil. Soc., XI, 1870, 490, Wilton Pond, Kennebec County, Me.
438. *Osmerus mordax abbotti* (Cope). *Cobessicentic smelt*.
Landlocked in Cobessicentic Lake, Kennebec County, Me.
Osmerus abbotti Cope, Proc. Amer. Phil. Soc., XI, 1870, 490, Cobessicentic Lake, Me.
439. *Osmerus sergeanti* ²² Norris.
New York Bay and southward.
Osmerus sergeanti Norris, Proc. Acad. Nat. Sci. Phila., XX, 1868, 93, Schuylkill River, N. J.
- Genus 149. *HYPOMESUS* Gill. *Surf smelts*.
Mesopus ²³ Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 14 (*Argentina pretiosa* Girard).
Hypomesus Gill, loc. cit., 15 (*Argentina pretiosa* Girard).
440. *Hypomesus pretiosus* (Girard). *Surf smelt*.
Coast of California and Oregon, from Monterey northward.
Argentina pretiosa Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 155, San Francisco.
Osmerus elongatus Ayres, Proc. Calif. Acad. Nat. Sci., I, 1854, 17, San Francisco.

²² The fish is described, but not named, in Proc. Acad. Nat. Sci. Phila., XIII, 1861, 58. It is named in Proc. Acad. Nat. Sci. Phila., XX, 1868, 93.

²³ *Mesopus*, a name left in type through failure to correct proof sheets. *Hypomesus* of same date, a page lower, chosen by author as name.

441. *Hypomesus olidus* (Pallas). Pond smelt.

Alaska and Kamchatka.

Salmo (*Osmerus*) *olidus* Pallas, Zoogr. Rosso.-Asiat., III, 1811, 391, lakes and rivers of Kamchatka.*?Osmerus oligodon* Kner, Denkschr. Akad. Wiss. Wien, 1865, 185, tab. 4, fig. 1.**Genus 150. THEROBROMUS Lucas. Ghost smelts.***Therobromus* Lucas, in Jordan and Gilbert, Fishes of Bering Sea, 1898, 440 (*T. callorhini* Lucas).**442. *Therobromus callorhini* Lucas. Ghost smelt.**

Bering Sea.

Therobromus callorhini Lucas, in Jordan and Gilbert, Fishes of Bering Sea, in Jordan, Fur Seals and Fur-Seal Islands, Pt. III, 1898, 440, Bering Sea, in southern portion; known only from skeletons and bones found in the stomachs of fur seals.**Family 51. ARGENTINIDÆ. Argentines****Genus 151. ARGENTINA Linnæus. Argentines.***Argentina* (Artedi) Linnæus, Syst. Nat., Ed. X, 1758, 315 (*A. sphyræna* L.).*Silus* Reinhardt, Bemærk., Skandinav. Ichthy., 1833, 11 (*Argentina silus* Ascanius).*Acantholepis* Krøyer, Danmarks Fiske, III, 1846-49, 98 (*Argentina silus* Ascanius).**443. *Argentina silus* Ascanius.**

Northern Europe; occasionally taken on the Grand Banks and off the coast of Maine.

Argentina silus Ascanius, Icon. Rev. Nat., 1763, Pl. III, 3, 24. Norway.*Silus ascanii* Reinhardt, Bemærk., Skandinav. Ichth., 1833, 11, Norway.*Argentina syrtensium* Goode and Bean, Proc. U. S. Nat. Mus., I, 1878, 261, off Sable Island in 200 fathoms; from stomach of *Phycis tenuis*.**444. *Argentina striata* Goode and Bean.**

Gulf of Mexico.

Argentina striata Goode and Bean, Oceanic Ichth., 1895, 52, fig. 62, Gulf Stream.**445. *Argentina sialis* Gilbert.**

Coast of California.

Argentina sialis Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 56, Albatross station 3017 in 58 fathoms.**Genus 152. LEUROGLOSSUS Gilbert.***Leuroglossus* Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 57 (*L. stilbius* Gilbert).**446. *Leuroglossus stilbius* Gilbert.**

Coast of California, in deep water.

Leuroglossus stilbius Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 57, from Albatross stations 2997 and 2998 in 221 and 40 fathoms.**Family 52. MICROSTOMIDÆ****Genus 153. NANSENIA Jordan and Evermann.***Nansenia* Jordan and Evermann, Fishes North and Mid. Amer., 1896, 528 (*Microstomus grænlandica* Reinhardt).**447. *Nansenia grænlandica* (Reinhardt).**

Greenland.

Microstomus grænlandica Reinhardt, Vidensk. Selsk.-Naturv. Math. Afhandl., VIII, 1841, LXXIV, Greenland.**Family 53. BATHYLAGIDÆ****Genus 154. BATHYLAGUS Günther.***Bathylagus* Günther, Ann. Mag. Nat. Hist., II, 1878, 248 (*B. antarcticus* Günther).

448. *Bathylagus benedicti* Goode and Bean.
Gulf Stream.
Bathylagus benedicti Goode and Bean, Oceanic Ichth., 1895, 55, fig. 64,
Gulf Stream.
449. *Bathylagus euryops* Goode and Bean.
Gulf Stream.
Bathylagus euryops Goode and Bean, Oceanic Ichth., 1895, 55, fig. 63,
Gulf Stream, in about lat. 40° N. and long. 70° W.
450. *Bathylagus pacificus* Gilbert.
Coast of Washington, in deep water.
Bathylagus pacificus Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 55,
Albatross stations 3071 and 3074, off coast of Washington.
451. *Bathylagus borealis* Gilbert.
Coast of Alaska, in deep water.
Bathylagus borealis Gilbert, Rept. U. S. Fish Com., XIX, 1893 (1896),
402, north of Unalaska Island at Albatross station 3327 in 322
fathoms.
452. *Bathylagus milleri* Jordan and Gilbert.
Off coast of southern California in deep water.
Bathylagus milleri Jordan and Gilbert, in Jordan and Evermann, Fishes
North and Mid. Amer., 1898, 2825, Cortez Banks, off San Diego, Calif.
- Genus 155. *XENOPHTHALMICHTHYS* Regan.
Xenopthalmichthys Regan, Ann. Mag. Nat. Hist., ser. 9, XV, 1925, 59
(*X. danæ* Regan).
453. *Xenopthalmichthys danæ* Regan.
Depths of the Caribbean Sea.
Xenopthalmichthys danæ Regan, Ann. Mag. Nat. Hist., ser. 9, XV,
1925, 59, off Santa Lucia in deep water.

Suborder STOMIATIOIDEI

Family 54. STOMIATIDÆ

- Genus 156. *STOMIAS* Cuvier.
Stomias Cuvier, Règne Anim., Ed. I, 1817, 184 (*Esox boa* Risso).
454. *Stomias ferox* Reinhardt.
Greenland and southward; Gulf Stream, from Bahama Channel to the
Grand Banks.
Stomias ferox Reinhardt, Vidensk. Selsk. Naturv. Math. Afhandl., X,
1842, 77, Greenland.
455. *Stomias affinis* Günther.
Sombrero Island, West Indies.
Stomias affinis Günther, Challenger Rept., XXII, 1887, 205, Pl. LIV,
Fig. A; Sombrero Island, West Indies.
456. *Stomias colubrinus* Garman.
Off Panama in deep water.
Stomias colubrinus Garman, Mem. Mus. Comp. Zool., XXIV, 1899,
275, Pl. LVII, fig. 7, station 3360, lat. 6° 17' N., long. 82° 5' W. in
1,672 fathoms.
457. *Stomias hexagonatus* Garman.
Eastern tropical Pacific in deep water.
Stomias hexagonatus Garman, Mem. Mus. Comp. Zool., XXIV, 1899,
Pl. LVI, fig. 5; various stations in the Pacific.
458. *Stomias atriventer* Garman.
Eastern Pacific in deep water.
Stomias atriventer Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 277,
Pl. LVI, fig. 4, Albatross station 3433, lat. 25° 76' 15" N., long. 109°
48' W., in 1,218 fathoms.
- Genus 157. *DACTYLOSTOMIAS* Garman.
Dactylostomias Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 279
(*D. filifer* Garman).

459. *Dactylostomias filifer* Garman.
Off Panama in deep water.
Dactylostomias filifer Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 279, Pl LVI, fig 6, *Albatross* stations 3413, 3414, and 3418
Genus 158. *ZASTOMIAS* Gilbert.
Zastomias Gilbert, Proc., U. S. Nat. Mus., XLVIII, 1915, 322 (*Z. scintillans* Gilbert).
460. *Zastomias scintillans* Gilbert.
Coast of California; Monterey Bay in deep water.
Zastomias scintillans Gilbert, Proc. U. S. Nat. Mus., XLVIII, 1915, 322, pl. 15, off Monterey Bay, Calif.
Genus 159. *ECHIOSTOMA* Lowe.
Echiostoma Lowe, Proc. Zool. Soc. Lond., 1843, 87 (*E. barbatum* Lowe).
Hyperchoristus Gill, Proc. U. S. Nat. Mus., VI, 1883, 256 (*H. tanneri* = *Echiostoma barbatum*)
461. *Echiostoma barbatum* Lowe.
Madeira; Gloucester, Mass.; and southward in the Gulf Stream to the old Bahama Channel.
Echiostoma barbatum Lowe, Proc. Zool. Soc. Lond., 1843, 88, Madeira.
Hyperchoristus tanneri Gill, Proc. U. S. Nat. Mus., VI, 1883, 256, Gulf Stream at *Albatross* station 2083, at 40° 26' 40" N., 60° 58' W., in 956 fathoms.
462. *Echiostoma margaritum* Goode and Bean.
Middle of the Gulf of Mexico.
Echiostoma margarita Goode and Bean, Oceanic Ichth., 1895, 109, fig. 131, Gulf of Mexico.
Genus 160. *GRAMMATOSTOMIAS* Goode and Bean.
Grammatostomias Goode and Bean, Oceanic Ichth., 1895, 110 (*G. dentatus* Goode and Bean).
463. *Grammatostomias dentatus* Goode and Bean.
Gulf Stream.
Grammatostomias dentatus Goode and Bean, Oceanic Ichth., 1895, 110, fig. 133, Gulf Stream.
Genus 161. *PHOTONECTES* Günther.
Lucifer Döderlein, Weigmann's Archiv, 1882, 26 (*L. albipinnis* Döderlein); name preoccupied in Crustacea
Photonectes Günther, *Challenger* Rept., XXII, 1887, 212 (*L. albipinnis* Döderlein).
464. *Photonectes gracilis* Goode and Bean.
Martinique.
Photonectes gracilis Goode and Bean, Oceanic Ichth., 1895, 112, fig. 137, off Martinique at *Blake* station XL in 472 fathoms.

Family 55. IDIACANTHIDÆ.

- Genus 162. *IDIACANTHUS* Peters.
Idiacanthus Peters, Monatsber. Akad. Wiss. Berlin, 1876, 846 (*I. fasciola* Peters).
Bathyopsis Gunther, Ann. Mag. Nat. Hist., ser. 5, II, 1878, 181 (*B. ferox* Gunther).
465. *Idiacanthus ferox* (Günther).
North Atlantic, nearly midway, in 2,750 fathoms.
Bathyopsis ferox Gunther, Ann. Mag. Nat. Hist., ser. 5, II, 1878, 181, middle of North Atlantic in 2,750 fathoms.
466. *Idiacanthus antrostomus* Gilbert.
Coast of southern California in deep water.
Idiacanthus antrostomus Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 54, off southern California, at *Albatross* station 2980 in 603 fathoms.

Family 56. MALACOSTEIDÆ

Genus 163. MALACOSTEUS Ayres.

Malacosteus Ayres, Jour. Bost. Soc. Nat. Hist., 1849, 53 (*M. niger* Ayres).

467. *Malacosteus niger* Ayres.

Open sea; Gulf Stream and southward to Barbados.

Malacosteus niger Ayres, Jour. Bost. Soc. Nat. Hist., 1849, 53, Gulf Stream, 42° N., 60° W.

Family 57. ASTRONESTHIDÆ

Genus 164. ASTRONESTHES Richardson.

Astronesthes Richardson, Ichth. Voy. *Sulphur*, 1845, 97 (*A. nigra*, Richardson).

Phænodon Lowe, Proc. Zool. Soc. Lond., XVIII, 1850, 250 (*P. ringens* Lowe).

468. *Astronesthes richardsoni* (Poey).

Deep waters of West Indies; Indian and Pacific Oceans.

Chauliodus richardsoni Poey, Memorias, I, 1852, 176, Cuba.

469. *Astronesthes gemmifer* Goode and Bean.

Gulf Stream.

Astronesthes gemmifer Goode and Bean, Oceanic Ichth., 1895, 105, fig. 124, Grand Banks, lat. 44° 25' N., long 53° 12' W., in 300 fathoms, in halibut stomach.

470. *Astronesthes niger* Richardson.

Deep waters of all seas.

Astronesthes niger Richardson, Ichth. Voy. *Sulphur*, 1845, 97, Atlantic.

Family 58. STYLOPHTHALMIDÆ

Genus 165. STYLOPHTHALMUS Brauer.

Stylophthalmus Brauer, Zool. Anzeiger, XXV, 1902, 298 (*S. paradoxus* Brauer).

471. *Stylophthalmus paradoxus* Brauer.

Open sea, north to southern California (San Pedro, W. F. Thompson).

Stylophthalmus paradoxus Brauer, Tiefseefische *Valdivia* Exped. (Zool. Anzeiger, XXV), 1902, 298; deep sea off the Cape of Good Hope and the Indian Ocean.

Family 59. CHAULIODONTIDÆ

Genus 166. CHAULIODUS Bloch and Schneider.

Chauliodus Bloch and Schneider, Syst. Ichth., 1801, 430 (*C. sloani* Bloch and Schneider).

Leptodes Swainson, Nat. Hist. Anim., II, 298 (*Chauliodes sloani* Bloch and Schneider).

472. *Chauliodus sloani* Bloch and Schneider.

Mediterranean and deep waters of the Atlantic; Georges Banks.

Chauliodus sloani Bloch and Schneider, Syst. Ichth., 1801, 430, Atlantic; after *Vipera marina* of Catesby.

473. *Chauliodus macouni* Bean.

Coast of California to British Columbia and Queen Charlotte Islands.

Chauliodus macouni Bean, Proc. U. S. Nat. Mus., XIII, 1890, 44, off Cape St. James, Queen Charlotte Islands.

474. *Chauliodus barbatus* Garman.

Off Pacific coast of Panama.

Chauliodus barbatus Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 271, Pl. K, figs. 2, 2a; off Panama.

Family 60. GONOSTOMIDÆ

Genus 167. GONOSTOMA Rafinesque.

Gonostoma Rafinesque, Indice, 1810, 64 (*G. denudatum* Rafinesque).

475. *Gonostoma denudatum* Rafinesque.

Gulf of Mexico at Albatross station 2665; off Morocco and Cape Verdes; Mediterranean Sea.

Gonostoma denudata Rafinesque, Indice, 1810, 65, Palermo.

Genus 168. ZAPHOTIAS Goode and Bean.

Bonapartia Goode and Bean, Oceanic Ichth., 1895, 102 (*B. pedaliota* Goode and Bean); name preoccupied.

Zaphotias Goode and Bean, in Jordan and Evermann, Fish. North and Mid. Amer., 1898, 2826 (*Bonapartia pedaliota* Goode and Bean).

476. *Zaphotias pedaliotus* (Goode and Bean).

Gulf Stream.

Bonapartia pedaliota Goode and Bean, Oceanic Ichth., 1895, 102, fig. 120, Albatross station 2642, in 25° 20' 30'' N. Lat., 79° 58' W. Long., depth 217 fathoms.

Genus 169. CYCLOTHONE Goode and Bean.

Cyclothone Goode and Bean, Bull. Mus. Comp. Zool., X, No. 5, 1883, 221 (*C. lusca* Goode and Bean).

Sigmops Gill, Proc. U. S. Nat. Mus., VI, 1883, 256 (*S. stigmaticus* Gill).

Neostoma Filhol, La Nature, 1884, 184 (*N. bathyphilum* Filhol).

Subgenus CYCLOTHONE Goode and Bean.

477. *Cyclothone microdon* (Günther).

Bermuda; Atlantic, Pacific, and Antarctic Oceans; Pacific coast from Oregon to Panama.

Gonostoma microdon Gunther, Ann. Mag. Nat. Hist., II, 1878, 188, near Bermuda.

Cyclothone lusca Goode and Bean, Bull. Mus. Comp. Zool., X, No. 5, 1883, 221, Gulf Stream.

478. *Cyclothone bathyphila* Vaillant.

Gulf of Gascony and off the Azores; western Atlantic.

Neostoma bathyphilum Filhol, La Nature, 1884, 184; name and rough figure only.

Cyclothone bathyphila Vaillant, Expéd. Sci. Travailleur et Talisman, Poissons, 1888, 96, pl. 8, fgs. 1, 1a; Gulf of Gascony, Azores.

479. *Cyclothone acclinidens* Garman.

Off California in deep water.

Cyclothone acclinidens Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 247, Pl. T, fig. 4; numerous stations of Albatross off California coast.

480. *Cyclothone signata* Garman.

Off Panama in deep water.

Cyclothone signata Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 246, Pl. T, fig. 3; Albatross station 3382, off Panama.

Subgenus SIGMOPS Gill.

481. *Cyclothone elongata* (Günther).

New Guinea; Banda; American coast; Gulf Stream; Indian Ocean.

Gonostoma elongatum Günther, Ann. Mag. Nat. Hist., II, 1878, 187, New Guinea; Banda.

Sigmops stigmaticus Gill, Proc. U. S. Nat. Mus., VI, 1883, 256, Gulf Stream, in 38° 19' 26'' N., 68° 20' 20'' W.

Genus 170. YARRELLA Goode and Bean.

Yarrella Goode and Bean, Oceanic Ichth., 1895, 103 (*Y. blackfordi* Goode and Bean).

482. *Yarrella blackfordi* Goode and Bean.

Gulf Stream.

Yarrella blackfordi Goode and Bean, Oceanic Ichth., 1895, 103, fig. 121, Gulf Stream at Albatross station 2376, in 324 fathoms.

483. *Lychnopoles argenteolus* Garman.
Off Panama in deep water.
Lychnopoles argenteolus Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 244, Pl. LIII, figs. 4, 4a; off Panama.

Family 61. MAUROLICIDÆ

Genus 172. MAUROLICUS Cocco.

Maurolicus Cocco, Nuovi Ann. Sci. Nat., II, 1838, 32 (*M. amethystino punctatus* Cocco).

484. *Maurolicus pennanti* (Walbaum). *Pearlsides*.
Open seas, widely distributed; New England coast at Nahant, Provincetown, Woods Hole, etc.
Argentina pennanti Walbaum, Artedi Pisc., 1792, 47, England; after "sheppy Argentine" of Pennant.

485. *Maurolicus oculatus* Garman.
Deep water off Pacific coast of Mexico.
Maurolicus oculatus Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 241, Pl. LIII, fig. 3; off Pacific coast of Mexico.

Genus 173. VINCIGUERRIA Jordan and Evermann.

Vinciguerria Jordan and Evermann, in Goode and Bean, Oceanic Ichth., 1895, 513 (*V. attenuata* Cocco).
Zalarges Jordan and Williams, in Jordan and Starks, Proc. Calif. Acad. Sci., ser. 2, V, 1895, 793 (*Z. nimbarus* Jordan and Williams).

486. *Vinciguerria attenuata* (Cocco).
Open Atlantic, west to the Bahama regions.
Maurolicus attenuatus Cocco, Nuovi Ann. Sci. Nat., II, 1838, 33, coast of Italy.

487. *Vinciguerria lucetia* (Garman).
Eastern Pacific, in deep water.
Maurolicus lucetius Garman, Deep Sea Fishes, in Mem. Mus. Comp. Zool., XXIV, 1899, 242, Pl. T, fig. 2; various Albatross stations, eastern Pacific.

488. *Vinciguerria nimbaria* (Jordan and Williams).
Open sea between Oregon and Hawaii.
Zalarges nimbarus Jordan and Williams, Proc. Calif. Acad. Sci., ser. 2, V, 1895 (1896), 793, open Pacific.

Genus 174. VALENCIENNELLUS Jordan and Evermann.

Valenciennellus Jordan and Evermann, Fishes North and Mid. Amer., 1896, 577 (*Maurolicus tripunctulatus* Esmark).

489. *Valenciennellus tripunctulatus* (Lutken).
Madagascar; Denmark Straits between Greenland and Iceland.
Maurolicus tripunctulatus Esmark, Christiania Vid. Selsk. Forh., 1870, 488, Madagascar.

490. *Valenciennellus stellatus* Garman.
Deep water off California.
Valenciennellus stellatus Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 239, Pl. LIII, fig. 2; off California coast, lat. 30° 31' 35" N., long. 140° 5' 30" W. in 300 fathoms.

Family 62. STERNOPTICHIDÆ

Genus 175. STERNOPTIX Herrmann.

Sternoptix Herrmann, Naturforscher, 2 Stück, XVI, 1781, 8 (*S. diaphana* Herrmann).
Sternoptyx, authors' amended spelling.

491. *Sternoptix obscura* (Garman).
Eastern Pacific in deep water.
Sternoptyx obscura Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 232, Pl. LIII, fig. 1; numerous stations in eastern Pacific in depths ranging from 421 to 1,823 fathoms.

492. *Sternoptix diaphana* Herrmann.
Atlantic; Gulf Stream, from Santa Cruz Island to the Grand Banks.
Sternoptix diaphana Herrmann, Naturforscher, XVI, 1781, 8, Jamaica.
- Genus 176. *ARGYROPELECUS* Cocco.
Argyrolepecus Cocco, Arch. del R. Acad. Peloritano, 1829, 146 (*A. hemigymnus* Cocco).
Pleurothyris Lowe, Hist. Fish. Madeira, 1843, 64 (*Sternoptyx olfersi* Cuvier).
493. *Argyrolepecus hemigymnus* Cocco.
Atlantic and Mediterranean; Gulf Stream off Southern New England.
Argyrolepecus hemigymnus Cocco, Arch. del R. Acad. Peloritano, 1829, 146, coast of Italy.
Sternoptyx mediterraneus Cocco, Giorn. Faro de Messina, IV, 1838, 7, coast of Italy.
494. *Argyrolepecus olfersi* (Cuvier).
Open Atlantic; coast of Norway to Brazil and Cape of Good Hope; Grand Banks southward in the Gulf Stream.
Sternoptyx olfersi Cuvier, Règne Anim., ed. 2, II, 1829, 316, near Cape of Good Hope.
Argyrolepecus durvillii Cuvier and Valenciennes, Hist. Nat. Poiss., XXII, 1849, 405, open Atlantic.
495. *Argyrolepecus lychnus* Garman.
Western Pacific in deep water.
Argyrolepecus lychnus Garman, Deep Sea Fishes, in Mem. Mus. Comp. Zool., XXIV, 1899, 234, Pl. T, fig. 1, 16; many stations in eastern Pacific.
496. *Argyrolepecus affinis* Garman.
Tropical Atlantic in deep water.
Argyrolepecus affinis Garman, Deep Sea Fishes, in Mem., Mus. Comp. Zool., XXIV, 1899, 237; sta. 2117, N. lat. 15° 24' 40'', W. long. 63° 31' 30'', in 683 fathoms.
- Genus 177. *POLYIPNUS* Günther.
Polyipnus Gunther, Challenger Rept., 1887, 170 (*P. spinosus* Günther).
497. *Polyipnus laternatus* Garman.
Off Barbados.
Polyipnus laternatus Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 238; Blake station 280, off Barbados in 221 fathoms.
498. *Polyipnus spinosus* Günther.
Gulf of Mexico; between the Philippines and Borneo.
Polyipnus spinosus Günther, Challenger Rept., XXII, 1887, 170, from the surface near the Philippine Islands.

Order O. LYOPOMI

Family 63. HALOSAURIDÆ

- Genus 178. *HALOSAURUS* Johnson.
Halosaurus Johnson, Ann. Mag. Nat. Hist., XIV, 1863, 74 (*H. oweni* (oweni) Johnson).
Halosaurichthys Alcock, loc. cit., 1889, 454, (*H. carinicauda* Alcock).
499. *Halosaurus güntheri* Goode and Bean.
Gulf Stream.
Halosaurus güntheri Goode and Bean, Oceanic Ichth., 1895, 131, Gulf Stream, in lat. 39° 13' N., long. 72° 1' W., Albatross station 2722.
500. *Halosaurus radiatus* Garman.
Off Panama in deep water.
Halosaurus radiatus Garman, Deep Sea Fishes, in Mem. Mus. Comp. Zool., XXIV, 1899, 298, Pl. LX, figs. 2, 2a, Pl. LXXXIV, figs. 3-6; several stations off Panama in depths from 259 to 511 fathoms.

501. *Halosaurus attenuatus* Garman.
Off Panama in deep water.
Halosaurus attenuatus Garman, Deep Sea Fishes, in Mem. Mus. Comp. Zool., XXIV, 1899, 296, Pl. LX, figs 1, 1a, Albatross station 3413, lat. 2° 34' N., long 92° 06' W., in 1,360 fathoms.
- Genus 179. *ALDROVANDIA* Goode and Bean.
Aldrovandia Goode and Bean, Oceanic Ichth., 1895, 132 (*Halosaurus rostrata* Günther).
Halosauropsis Collett, Poiss. Prov. Comp. l'*Hirondelle*, Fasc. *X., Monaco, 1896, 143 (*Halosaurus macrochir*).
502. *Aldrovandia rostrata* (Günther).
Mid-Atlantic.
Halosaurus rostratus Günther, Ann. Mag. Nat. Hist., II, 1878, 252, Mid-Atlantic.
503. *Aldrovandia macrochir* (Günther).
Marion Island; Blake stations 308 and 325.
Halosaurus macrochir Günther, Ann. Mag. Nat. Hist., II, 1878, 251, between Cape of Good Hope and Kerguelen Island.
504. *Aldrovandia goodei* (Gill).
Gulf Stream, at Albatross stations 2037 in 1,731 fathoms; 2051 in 1,106 fathoms; 2035 in 1,362 fathoms, and 2052 in 1,098 fathoms.
Halosaurus goodei Gill, Proc. U. S. Nat. Mus., VI, 1883, 257, Gulf Stream off South Carolina.
505. *Aldrovandia gracilis* Goode and Bean.
Gulf Stream and Gulf of Mexico
Aldrovandia gracilis Goode and Bean, Oceanic Ichth., 1895, 134, fig. 157, off Guadeloupe and in Gulf Stream at Albatross stations 2380 and 2381.
506. *Aldrovandia pallida* Goode and Bean.
Gulf of Mexico, in deep water.
Aldrovandia pallida Goode and Bean, Oceanic Ichth., 1895, 135, fig. 158, Gulf of Mexico, at Albatross station 173.

Order P. HETEROMI. Spiny eels

Family 64. LIPOGENYIDÆ

- Genus 180. *LIPOGENYS* Goode and Bean.
Lipogenys Goode and Bean, Proc. U. S. Nat. Mus., XVII, 1894 (1895), 469 (*L. gillii* Goode and Bean).
507. *Lipogenys gillii* Goode and Bean
Gulf Stream.
Lipogenys gillii Goode and Bean, Proc. U. S. Nat. Mus., XVII, 1894 (1895), 469, pl. 18, fig. 3, and in Oceanic Ichth., 173, 1895, station 2742, Gulf Stream.

Family 65. NOTACANTHIDÆ

- Genus 181. *NOTACANTHUS* Bloch.
Notacanthus Bloch, Abhandl., Bohmischen Gesellsch. Wiss., I, 1787, 278 (*N. chemnitzii* Bloch).
Acanthonotus Bloch, Ichthyologia, XII, 1797, 113 (*A. nasus* Bloch = *N. chemnitzii* Bloch).
Campylodon (Fabricius, 1798) Reinhardt, Vidensk. Selsk. Naturv. Math. Afhandl., 1838, 120 (*C. fabricii* Reinhardt).
508. *Notacanthus chemnitzii* Bloch.
Greenland; West Indies; Iceland; Scandinavia; South Greenland.
Notacanthus chemnitzii Bloch, Abhandl., Bohmischen Gesellsch. Wiss., I, 1787, 278, northern seas.
Notacanthus nasus Bloch, Ichthyologia, XII, 1795, 113, pl. 431, "India."
Campylodon fabricii Reinhardt, Vidensk. Selsk. Naturv. Math. Afhandl., 1838, 120, Greenland.

509. *Notacanthus analis* Gill.

Gulf Stream.

Notacanthus analis Gill, Proc. U. S. Nat. Mus., VI, 1883, 255, lat. 40° N., long. 69° W., Albatross stations 2677 in 478 fathoms and 2676 in 407 fathoms.510. *Notacanthus phasganorus* Goode.

Grand Banks, Newfoundland.

Notacanthus phasganorus Goode, Proc. U. S. Nat. Mus., III, 1880, 535, Grand Banks of Newfoundland.511. *Notacanthus spinosus* Garman.

Off Panama.

Notacanthus spinosus Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 301, Pl. L, figs. 4, 4a, 4b; Albatross stations 3384 and 3354, 322 and 458 fathoms.Genus 182. *POLYACANTHONOTUS* Bleeker.*Polyacanthonotus* Bleeker, Versl. Akad. Amsterdam (2), VIII, 368 (*Notacanthus rissoanus* Filippi and Verany).*Zanotacanthus* Gill, Johnson's Cyclopædia, III, 1876, 883 (*Notacanthus rissoanus* Filippi and Verany).*Macdonaldis* Goode and Bean, Proc. U. S. Nat. Mus., XVII, 1894 (1895), 467 (*Notacanthus rostratus* Collett).512. *Polyacanthonotus challenger* (Vaillant).

North Pacific and Bering Sea.

Notacanthus rissoanus Gunther, Fishes, Challenger, XXII, Part LVII, Pl. LXI, fig. 13 (not of Filippi and Verany).*Notacanthus challenger* Vaillant, Expéd. Sci. Travailleur et Talisman, 1888, south of Yeddo; based on Gunther's description.513. *Polyacanthonotus rostratus* (Collett).

Gulf Stream.

Notacanthus rostratus Collett, Bull. Soc. Zool. France, 1889, 307, off Newfoundland, at Albatross station 2216 in 963 fathoms, and station 2553 in 551 fathoms.

Order Q. SYMBRANCHIA. Symbranchoid eels

Suborder HOLOSTOMI

Family 66. SYMBRANCHIDÆ

Genus 183. *SYMBRANCHUS* Bloch.*Synbranchus* Bloch, Ichthyologia, IX, 1795, 87 (*Synbranchus marmoratus* Bloch).*Umbranchaptura* Lacépède, Hist. Nat. Poiss., V, 1803, 658 (*Synbranchus marmoratus*).*Ophisternon* McClelland, Calcutta Jour. Nat. Hist., V, 1845, 197 (*O. bengalensis*).*Tetrabanchus* Bleeker, Nat. Tijds. Ned. Ind., II, 1862, 69 (*T. micropthalmus* McClelland).*Synbranchus* of authors generally; corrected spelling.514. *Synbranchus marmoratus* Bloch.

Tropical America, in streams from the Amazon northward to southern Mexico and St. Lucia; generally abundant; recorded northward from Vera Cruz, Trinidad, St. Lucia, Lake Peton, Huamuchal, Rio Chisoy, etc.

Synbranchus marmoratus Bloch, Ichthyologia, IX, 1795, 87, pl. 418, tropical America.*Synbranchus immaculatus* Bloch, loc. cit., pl. 419, fig. 1.*Synbranchus transversalis* Bloch and Schneider, loc. cit., 1801, 524, Guinea; after Gronow.*Umbranchaptura grisea*, *marmorata*, *immaculata*, and *lineata* Lacépède, Hist. Nat. Poiss., V, 1803, 658, Surinam.*Synbranchus fuliginosus* Ranzani, Nov. Com. Acad. Sci. Bonon, IV, 1840, 75, pl. 11, fig. 1, Brazil.*Muræna humbricus* Gronow, Cat. Fish., 1854, 18, Sea of Guinea.*Symbranchus vittatus* Castelnau, Anim. Amer. Sud. Poiss., 84. 1855.

Order R. CARENCELI. Long-necked eels

Family 67. DERICHTHYIDÆ

Genus 184. DERICHTHYS Gill.

Derichthys Gill, Amer. Nat., XVIII, 1884, 433 (*D. serpentinus* Gill).

515. *Derichthys serpentinus* Gill.

Gulf Stream.

Derichthys serpentinus Gill, Am. Nat., XVIII, 1884, 433, Gulf Stream at Albatross station 2094 in 1,022 fathoms.

Genus 185. GORGASIA Meek and Hildebrand.

Gorgasia Meek and Hildebrand, Field Mus. Nat. Hist., Zool., XV, 1923, 133 (*G. punctata* Meek and Hildebrand).

516. *Gorgasia punctata* Meek and Hildebrand.

Panama.

Gorgasia punctata Meek and Hildebrand, Field Mus. Nat. Hist., Zool., XV, 1923, 133, Chame Point, Panama.

Order S. APODES

Suborder ENCHELYCEPHALI

Series ANGUILLOIDEI

Family 68. ANGUILLIDÆ. True eels

Genus 186. ANGUILLA Shaw. Eels.

Anguilla Shaw, Gen. Zool., IV, 1803, 15 (*A. anguilla*).

Muraena Bleeker, Poey, etc. (taking as type *Muraena anguilla*, the first species mentioned by Artedi under *Muraena*).

Tribranchnus (Peters) Muller, Abhandl., Akad. Wiss. Berlin, 1844 (*T. anguillaris* Peters = *Anguilla australis* Rich).

517. *Anguilla rostrata* (LeSueur). American eel; Fresh-water eel.

Atlantic coast of the United States; very abundant from Maine to Mexico, ascending all rivers south of Canada and east of the Rocky Mountains, individuals sometimes resident throughout the Mississippi Valley; common in the West Indies.

Muraena rostrata LeSueur, Jour. Acad. Nat. Sci. Phila., 1817, 81, Cayuga Lake.

Muraena bostonensis LeSueur, loc. cit., 81, Boston.

Muraena serpentina LeSueur, loc. cit., 82, Newport, R. I.

Muraena macrocephala LeSueur, loc. cit., 82, Saratoga, N. Y.

Muraena argentea LeSueur, loc. cit., 82, Boston Bay.

Anguilla chrysypa Rafinesque, Amer. Month. Mag. and Crit. Rev., 1817, 120, Lake George; Hudson River; Lake Champlain.

Anguilla blephura Rafinesque, loc. cit., 120, Long Island.

Anguilla laticauda Rafinesque, loc. cit., 445, Ohio River.

Anguilla aterrima Rafinesque, Ichth. Ohiensis, 1820, 78, Tennessee and Cumberland Rivers.

Anguilla xanthomelas Rafinesque, loc. cit., 78, Ohio River.

Anguilla lutea Rafinesque, loc. cit., 78, Ohio River.

Anguilla temurostris DeKay, N. Y. Fauna Fishes, 1842, 310, New York.

Anguilla novaeorleansis Kaup, Apodal Fishes, 1856, 43, fig. 33, New Orleans, La.

Anguilla punctatissima Kaup, loc. cit., 44, Niagara River.

Anguilla cubana Kaup, loc. cit., 44, Cuba.

Anguilla novæterræ Kaup, loc. cit., 45, fig. 35, Newfoundland.

Anguilla texana Kaup, loc. cit., 45, fig. 36, Texas.

Anguilla wabashensis Kaup, loc. cit., 46, Wabash River.

Anguilla tyrannus Girard, U. S. Mex. Bound. Surv., Ichth., 1859, 75, Rio Grande.

Family 69. SIMENCHELYIDÆ. Snub-nosed eels

Genus 187. SIMENCHELYS Gill.

Simenchelys Gill, in Goode and Bean, Bull. Essex Inst., 1879, 27 (*S. parasiticus* Gill).

Conchognathus Collett, Bull. Soc. Zool. France, 1889, 123 (*C. grimaldii* Collett).

518. *Simenchelys parasiticus* Gill.

Offshore banks, in deep water, south of Newfoundland; also recorded from the Azores.

Simenchelys parasiticus Gill, in Goode and Bean, Bull. Essex Inst., 1879, 27, Newfoundland banks.

Conchognathus grimaldii Collett, Bull. Soc. Zool. France, 1889, 122, Azores.

Family 70. SYNAPHOBANCHIDÆ

Genus 188. SYNAPHOBANCHUS Johnson.

Synphobanchus Johnson, Proc. Zool. Soc. Lond., 1862, 169 (*S. kaupii* Johnson = *Muraena pinnata* Gronow).

519. *Synphobanchus pinnatus* (Gronow).

North Atlantic and western Pacific; common about the Madeiras, Canaries, etc., and also about the banks of Newfoundland.

Muraena pinnata Gronow, Cat. Fish., 1854, 19, locality unknown.

Synphobanchus kaupii Johnson, Proc. Zool. Soc. Lond., 1862, 169, Madeira.

Genus 189. HISTIOBRANCHUS Gill.

Histiobranchus Gill, Proc. U. S. Nat. Mus., VI, 1883, 255 (*H. infernalis* Gill).

520. *Histiobranchus bathybius* (Günther).

Northern and western Pacific in deep water; Bering Strait; off Japan and off Cape of Good Hope; one specimen obtained by Doctor Gilbert in Bering Sea in 1890.

Synphobanchus bathybius Günther, Ann. Mag. Nat. Hist., XX, 1877, 445, and in Voy. Challenger, 254, Pl. LXII, fig. 6, 1887, off Yeddo; North Pacific; Kerguelen Island.

521. *Histiobranchus infernalis* Gill.

Gulf Stream.

Histiobranchus infernalis Gill, Proc. U. S. Nat. Mus., VI, 1883, 255, Gulf Stream, at Albatross station 2037, 38° 30' N., 69° W., in 1,731 fathoms.

Family 71. ILYOPHIDÆ. Ooze eels

Genus 190. ILYOPHIS Gilbert.

Ilyophis Gilbert, Proc. U. S. Nat. Mus., XIV, 1891, 351 (*I. brunneus* Gilbert).

522. *Ilyophis brunneus* Gilbert.

One specimen from Chatham Island, Galapagos Archipelago, in 634 fathoms.

Ilyophis brunneus Gilbert, Proc. U. S. Nat. Mus., XIV, 1891, 352, Chatham Island, Galapagos Archipelago, at Albatross station 2808 in 654 fathoms.

Family 72. MURÆNESOCIDÆ

Genus 191. MURÆNESOX McClelland.

Muraenesox McClelland, Calcutta Jour. Nat. Hist., V, 1844, 408 (*M. tricuspidata* McClelland).

Branchyconger Bleeker, Nederl. Tijdschr. Dierk., II, 1865, 236 (*Muraena savanna* Cuvier).

523. *Muraenesox savanna* (Cuvier).

Cuba to Rio Janeiro, not common; occasional in the Mediterranean Sea.

Muraena savanna Cuvier, Règne Anim., ed. 2, II, 1829, 350, Martinique.

Conger brasiliensis Ranzani, De Novis Spec. Pisc. Diss. Prima., IV, 1838, 17, pl. 13, fig. 1, Brazil.

Congrus curvidens Richardson, Voy. Erebus and Terror, 1844, 111, no locality.

Conger limbatus Castelnau, Anim. Amér. Sud, 1855, 83, pl. 43, fig. 3, Rio Janeiro.

524. *Muraenesox coniceps* Jordan and Gilbert.
Cape San Lucas to the coast of Colombia; generally common.
Muraenesox coniceps Jordan and Gilbert, Proc. U. S. Nat. Mus., IV,
1881, 348, Mazatlan, Mexico.

Family 73. CONGRIDÆ (LEPTOCEPHALIDÆ). Conger eels

Genus 192. CONGER Cuvier. Conger eels.

- a. Adult forms (Conger):
Conger Cuvier, Oken, in Règne Anim., Ed. I, 1817, 231 ("Les Congres"
Cuvier, Oken, 1182) (*Muraena conger* Linnæus).
Congrus Richardson, Voy. *Erebus* and *Terror*, 1844, 107 (*Muraena conger* Linnæus).
b. Larval forms (*Leptocephali*):
Leptocephalus Scopoli, Int. Hist. Nat., 1777, 453 (*L. morrissi* Gmelin).
Oxyurus Rafinesque, Caratteri, 1810, 19 (*O. vermiciformis* Lacépède).
Helmictus Rafinesque, Indice, 1810, 62.
Helmichthys Costa, Fauna Napoli, Pesci, tavoli 31, 1854 (*H. diaphanus* Costa).
? *Leptocephalichthys* Bleeker, Act. Soc. Sci. Indo-Neder., I, 69 (*L. hypselosoma* Bleeker, a larval form allied to *Conger*).
? *Diaphanichthys* Peters, Sitzungsber., Akad. Wiss. Berlin, 1864, 399 (*D. brevicaudus* Peters); larva allied to *Conger*.

525. *Conger conger* (Linnæus). Conger eel.
Atlantic Ocean; generally common on both coasts, from Cape Cod to Brazil, also on coasts of Asia and Africa.

- a. Adult forms:
Muraena supremo marginæ pinnæ dorsalis nigro Artedi, Synon., 40, 1738, 2, Mediterranean.
Muraena conger Linnæus, Syst. Nat., ed. X, 1758, 245; based on Artedi.
Muraena nigra Risso, Ichth. Nice, 1810, 93 (black variety), Nice.
Anguilla oceanica Mitchell, Jour. Acad. Nat. Sci. Phila., 1818, 407, off New York.
Conger verus Risso, Europ. Mérid., III, 1826, 201, Nice.
Conger vulgaris Cuvier, Règne Anim., ed. 2, II, 1829, 350, France.
Conger rubescens Ranzani, De Novis Spec. Pisc. Diss. Prima, 1838, 19, Pl. V, fig. 5, Mediterranean.
Ophisoma obtusa Swainson, Nat. Hist. Fish., Reptiles, and Amphib., II, 1839, 395, Sicily.
Conger orbignyanus Valenciennes, D'Orbigny, Voy. Am. Merid., Poiss., 1839, pl. 12, 1, South America.
Conger verreauxi Kaup, Apodal Fishes, 1856, 115, no locality.
Conger esculentus Poey, Memorias, II, 1861, 346, Cuba.

- b. Larval forms:
Leptocephalus morrissi Gmelin, Syst. Nat., 1150, 1877, Holyhead, England.
Ophidium pellucidum Couch, Lond. Mag. Nat. Hist., V, 1832, 3113, 742, England.
Leptocephalus gracilis Storer, Mem. Amer. Acad., II, 1839, 524, Massachusetts.
Leptocephalus spallanzani, *candidissimus*, etc., of European writers.

526. *Conger caudilimbatus* (Poey).
Tropical parts of Atlantic; Pensacola to Cuba and Madeira.
Echelus caudilimbatus Poey, Repertorio, II, 1867, 249, Cuba.
Conger macrops Günther, Cat., VIII, 1870, 40, Madeira, Bahamas.
Conger caudicula Bean, Proc. U. S. Nat. Mus., V, 1882, 435, Pensacola.

Genus 193. ARIOSOMA Swainson.

- Ariosoma* Swainson, Nat. Hist. Fish., I, 1838, 220; II, 1839, 195 (no type named, logotype as restricted by Bleeker and by Swainson).
Ophisoma acuta Swainson = *Muraena balearica* De la Roche).
Ophisoma Swainson, loc. cit., 1839; *Ophisoma acuta* Swainson; substitute for *Ariosoma*; the name preoccupied.
Congermuraena Kaup, Apodal Fishes, 1856, 71 (108) (*Muraena balearica* De la Roche, as restricted by Bleeker).
Congrellus Ogilby, Proc. Linn. Soc. New South Wales, XXIII, 1898, 288 (*Muraena balearica* De la Roche).

527. *Ariosoma opisthophthalma* (Ranzani).
West Indies to Brazil.
Conger opisthophthalmus Ranzani, De Novis Spec. Pisc. Diss. Prima, 1838, 16, Pl. V, fig. 1, Bahia.
Conger microstomus Castelnau, Anim. Amér. Sud, 1855, 83, pl. 42, fig. 4, Rio Janeiro.
Conger analis Poey, Memorias, II, 1861, 318, Habana.
Conger impressus Poey, loc. cit., 318, Cuba.
528. *Ariosoma gilberti* (Ogilby).
Panama; probably also at the Galapagos and Cape San Lucas.
Ophisoma balearicum Gilbert, Proc. U. S. Nat. Mus., XIV, 1891, 349, Albatross station 2797, Panama Bay, 33 fathoms; not of De la Roche.
Congrellus gilberti Ogilby, Proc. Linn. Soc. New South Wales, 1898, 288, after Gilbert.
529. *Ariosoma caudale* (Garman).
Off Panama in deep water.
Congermuræna caudalis Garman, Mus. Comp. Zool., XXIV, 1899, 305; Albatross station 3354, lat. 7° 9' 45'' N., long. 80° 50' W., in 322 fathoms.
- Genus 194. *ANAGO*²⁴ Jordan and Hubbs.
Anago Jordan and Hubbs, Mem. Carnegie Mus., X, 1925, 191 (*Conger anago* Schlegel).
530. *Anago nitens* (Jordan and Bollman).
One specimen dredged at Albatross station 2801, off Panama, 8° 47' N., 79° 29' 30'' W., in 14 fathoms.
Ophisoma nitens Jordan and Bollman, Proc. U. S. Nat. Mus., XII, 1889, 153, Panama.
531. *Anago macrurus* (Gilbert).
Gulf of California.
Ophisoma macrurum Gilbert, Proc. U. S. Nat. Mus., XIV, 1891, 351, Gulf of California, at Albatross station 3105.
- Genus 195. *HILDEBRANDIA* Jordan and Evermann.
Hildebrandia Jordan and Evermann, Proc. Calif. Acad. Sci., 4th Ser., XVI, Apr. 27, 1927, 502 (*Congermuræna flava* Goode and Bean).
532. *Hildebrandia flava* (Goode and Bean).
Albatross stations 2121 and 2122 in 31 and 34 fathoms; station 2402 in 111 fathoms; also Blake station 264 in 84 fathoms; Gulf Stream.
Congermuræna flava Goode and Bean, Oceanic Ichth., 1895, 138, fig. 159, Gulf Stream.
- Genus 196. *GNATHOPHIS* Kaup.
Gnathophis Kaup, Abhandl., Natur. Verein Hamburg, 1859 (1860), IV, Abth. 2, 7 (*G. heterognathus* Kaup); teeth blunt.
533. *Gnathophis guppii* (Norman).
West Indies.
Congermuræna guppii Norman, Ann. Mag. Nat. Hist., ser. 9, XV, 1925, 313, Tobago.
534. *Gnathophis proriger* (Gilbert).
Panama to Ecuador.
Ophisoma prorigerum Gilbert, Proc. U. S. Nat. Mus., XIV, 1891, 350, coast of Ecuador, at Albatross station 2792 in 401 fathoms; also at station 2799, near Panama.
- Genus 197. *CONGROSOMA* Garman.
Congrosoma Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 308 (*Congrosoma evermanni* Garman).
535. *Congrosoma evermanni* Garman.
Off Panama.
Congrosoma evermanni Garman, Mem. Mus. Comp. Zool., XXIV, 1899, Pl. LXII, fig. 1, Albatross station 3355, lat. 7° 12' 20'' N., long. 80° 55' W. in 182 fathoms.

²⁴ This shore species named below may not, any of them, belong to *Anago* or, in fact, to the same genus. They seem nearer the Japanese form *Anago* than to *Ariosoma*.

Genus 198. UROCONGER Kaup.

Uroconger Kaup, Apodal Fishes, 1856, 110 (*U. lepturus* Kaup).

536. *Uroconger vicinus* Vaillant.

Deep waters off the coast of northern Africa; a young individual taken by the *Albatross* at station 2161 in 146 fathoms.

Uroconger vicinus Vaillant, Expéd. Sci. *Travailleur* et *Tahsman*, 1883, 86, Pl. VI, fig. 1, Banc d'Arguin, off Soudan, off Cape Verde Islands.

537. *Uroconger varidens* Garman.

Off Panama in deep water.

Uroconger varidens Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 304, Pl. LXI, fig. 1, *Albatross* stations 3396 and 3357 in 259 and 782 fathoms.

Genus 199. MICROCONGER Fowler.

Microconger Fowler, Proc. Acad. Nat. Sci. Phila., LXIV, 1912, 9 (*Leptocephalus caudalis* Fowler)

538. *Microconger caudalis* (Fowler).

Coast of Lower California.

Leptocephalus (Microconger) caudalis Fowler, Proc. Acad. Nat. Sci. Phila., LXIV, 1912, 9; off Lower California.

Genus 200. MAYERINA Silvester.

Mayerina Silvester, Carnegie Inst. Year Book, XIV, 1915, 214 (*Mayerina mayeri* Silvester).

539. *Mayerina mayeri* Silvester.

Porto Rico.

Mayerina mayeri Silvester, Carnegie Inst. Year Book, XIV, 1915, 214, Porto Rico.

Genus 201. XENOMYSTAX Gilbert.

Xenomystax Gilbert, Proc. U. S. Nat. Mus., XIV, 1891, 348 (*X. atrarius* Gilbert).

540. *Xenomystax atrarius* Gilbert.

Coast of Ecuador.

Xenomystax atrarius Gilbert, Proc. U. S. Nat. Mus., XIV, 1891, 348, 1° S., 81° W., at *Albatross* station 2792 in 401 fathoms.

541. *Xenomystax rictus* Garman.

Off Panama.

Xenomystax rictus Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 315, Pl. N, several *Albatross* stations (3384, 3394, 3354, 3404, 3417) in from 322 to 511 fathoms.

Genus 202. HOPLUNNIS Kaup.

Hoplunnus Kaup, Aalen. Fische Hamburg Mus., 1860, 19 (*H. schmidtii* Kaup).

542. *Hoplunnus schmidtii* Kaup.

Caribbean Sea at Puerto Cabello, near Aspinwall; Colon.

Hoplunnus schmidtii Kaup, Aalen. Fische Hamburg Mus., 1859, 19, pl. 2, fig. 4, Puerto Cabello, near Aspinwall, Colon.

543. *Hoplunnus diomedianus* Goode and Bean.

A single individual obtained by the *Albatross* in the Gulf of Mexico

Hoplunnus diomedianus Goode and Bean, Oceanic Ichth., 146, 1895, fig. 163, Gulf of Mexico, *Albatross* station 2402, 28° 36' N., 86° 50' W., 111 fathoms.

Genus 203. NEOCONGER Girard.

Neoconger Girard, Proc. Acad. Nat. Sci. Phila., X, 1858 (1859), 171 (*N. mucronatus* Girard).

544. *Neoconger mucronatus* Girard.

Coast of Texas.

Neoconger mucronatus Girard, Proc. Acad. Nat. Sci. Phila., X, 1858 (1859), 171, St. Joseph Island, Texas.

545. *Neoconger vermiformis* Gilbert.

Lower California to Panama

Neoconger vermiformis Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 57, off Lower California, at *Albatross* station 3035 in about 30 fathoms.

Genus 204. LEPTOCONGER Poey.

Leptoconger Poey, Anal. Soc. Española Hist. Nat., Madrid, 1880, 250
(*L. perlongus* Poey).

546. *Leptoconger perlongus* (Poey).

Matanzas, Cuba.

Neoconger perlongus Poey, Ann. Lyc. Nat. Hist. N. Y., XI, 1874, 67,
pl. 9, figs. 3 and 4, Matanzas, Cuba.

Family 74. NETTASTOMIDÆ. Duckbill eels; Sorcerers**Genus 205. CHLOPSIS Rafinesque.**

Chlopsis Rafinesque, Indice, 1810, 58 (*C. bicolor* Rafinesque).

Saurenychelys Peters, Sitzungsber. Akad. Wiss. Berlin, 1864, 397 (*S. can-*
crowa Peters)

547. *Chlopsis equatorialis* Gilbert.

Coast of Ecuador.

Chlopsis equatorialis Gilbert, Proc. U. S. Nat. Mus., XIV, 1891, 347,
off coast of Ecuador, 1° S., 81° W., at Albatross station 2792 in 401
fathoms.

548. *Chlopsis gilberti* Garman.

Off Panama and San Diego.

Chlopsis gilberti Garman, Mem. Mus. Comp. Zool., XXIV, 1899,
Pl. LXII, fig. 2, various stations of the Albatross, from 322 to 511
fathoms.

Genus 206. VENEFICA Jordan and Davis.

Venefica Jordan and Davis, Rept. U. S. Fish Com., XVI, 1888, 651 (*Net-*
tastoma procerum Goode and Bean).

549. *Venefica procera* (Goode and Bean).

Gulf Stream; also taken off San Pedro, Calif.

Nettastoma procerum Goode and Bean, Bull. Mus. Comp. Zool., X,
1883, 224, Gulf Stream, at Albatross station 325.

550. *Venefica ocella* Garman.

Off Panama in deep water.

Venefica ocella Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 318,
Pl. LXI, fig. 2, Albatross station 3366, lat. 5° 30' N., long. 86° 45' W.,
in 1,067 fathoms.

551. *Venefica tentaculata* Garman.

Off Panama in deep water; San Diego.

Venefica tentaculata Garman, Mem. Mus. Comp. Zool., XXIV, 1899,
319, Pl. M, fig. 2, various Albatross stations at depths ranging from
770 to 978 fathoms.

Genus 207. TÆNIOCONGER Herre.

Tænioconger Herre, Philippine Jour. Sci., XXIII, No. 2, August, 1923,
152 (*T. chapmani* Herre).

552. *Tænioconger digueti* Pellegrin.

Gulf of California.

Tænioconger digueti Pellegrin, Compt. Rend. Acad. Sci. Paris, CLXXVII,
1923, 789, near Island of Espiritu Santo, Gulf of California.

Family 75. ECHELIDÆ. Worm eels**Genus 208. AHLIA Jordan and Davis.**

Ahlia Jordan and Davis, Rept. U. S. Fish Com., XVI, 1888, 639 (*Myro-*
phis egmontis Jordan).

553. *Ahlia egmontis* (Jordan).

Florida Keys.

Myrophis egmontis Jordan, Proc. Acad. Nat. Sci. Phila., XXXVI, 1884,
44, Egmont Key, Fla.

Genus 209. MYROPHIS Lütken.

Myrophis Lütken, Vid. Med. Naturh. Foren. Kjøbenhavn, 1, 1851
(*M. punctatus* Lütken).

554. *Myrophis punctatus* Lütken.

West Indies; coast of Texas to Surinam; common along our Gulf coast.
Myrophis punctatus Lütken, Vid. Med. Naturh. Foren. Kjøbenhavn, 1, 1851, 9, West Indies.

Myrophis microstigmus Poey, Repertorio, II, 1867, 250, Cuba.

Myrophis lumbricus Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 261, Galveston, Tex.

555. *Myrophis vafer* Jordan and Gilbert.

Pacific coast of tropical America, from Guaymas to Panama.

Myrophis vafer Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 645, Panama.

Genus 210. *CHILORHINUS* Lütken.

Chilorhinus Lütken, Vid. Med. Naturh. Foren. Kjøbenhavn, 1, 1851 (C. *suensonii* Lütken).

556. *Chilorhinus suensonii* Lütken.

St. Croix, West Indies.

Chilorhinus suensonii Lütken, Vid. Med. Naturh. Foren. Kjøbenhavn, 1, 1851, St. Croix.

Family 76. NEMICHTHYIDÆ. Thread eels; Snipe eels**Genus 211. *NEMICHTHYS* Richardson.**

Nemichthys Richardson, Voy. *Samarang*, 1848, 25 (*N. scolopaceus* Richardson).

Leptorhynchus Lowe, Ann. Mag. Nat. Hist., X, 1852, 54 (*L. leuchtenbergi* Lowe); preoccupied.

Belonopsis Brandt, Mem. Acad. Sci. St. Petersb., Savans Etrangères, 1854, 174 (*Leptorhynchus leuchtenbergi* Lowe).

557. *Nemichthys scolopaceus* Richardson. *Snipe eel*.

Atlantic Ocean, in deep water; many specimens taken off the New England coast and off the Grand Banks; common about Madeira.

Nemichthys scolopacea Richardson, Voy. *Samarang*, 1848, 25, South Atlantic.

Leptorhynchus leuchtenbergii Lowe, Mem. Acad. Sci. St. Petersb., Savans Etrangères 1854, 171, Madeira.

Belonopsis leuchtenbergii Brandt, loc. cit., 1854, 174 (with good plate).

558. *Nemichthys avocetta* Jordan and Gilbert.

Puget Sound near Seattle; only the type known.

Nemichthys avocetta Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 409, harbor of Port Gamble, near Seattle.

559. *Nemichthys fronto* Garman

Off Pacific coast of Mexico, in deep water.

Nemichthys fronto Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 324, Pl. LXV, fig. 1, *Albatross* stations 3384 and 3434, in 458 and 1,588 fathoms.

Genus 212. *AVOCETTINA* Jordan and Davis.

Avocettina Jordan and Davis, Rept. U. S. Fish Com., XVI, 1888, 655 (*Nemichthys infans* Gunther).

560. *Avocettina infans* (Gunther).

Known from West Indies, and middle Atlantic off Pernambuco.

Nemichthys infans Gunther, Ann. Mag. Nat. Hist., 5th Ser., II, 1878, 251, and in *Challenger* Rept., XXII, 1887, 264, mid. Atlantic in 2,500 fathoms.

561. *Avocettina gilli* (Bean).

Coast of southeastern Alaska in deep water.

Labichthys gilli Bean, Proc. U. S. Nat. Mus., XIII, 1890, 45, east of Prince of Wales Island, Alaska.

562. *Avocettina elongata* (Gill and Ryder).

Gulf Stream.

Labichthys elongatus Gill and Ryder, Proc. U. S. Nat. Mus., VI, 1883, 262, Gulf Stream at *Albatross* station 2100, 39° 22' N., 68° 34' W.

Genus 213. SERRIVOMER Gill and Ryder.

Serrivomer Gill and Ryder, Proc. U. S. Nat. Mus., VI, 1883, 260 (*S. beanii* Gill and Ryder).

563. *Serrivomer beanii* Gill and Ryder.

Gulf Stream; also taken in the Gulf of California.

Serrivomer beanii Gill and Ryder, Proc. U. S. Nat. Mus., VI, 1883, 261, Gulf Stream, lat. 41° 40' 30'', long. 65° 28' 30'' in 855 fathoms.

564. *Serrivomer sector* Garman.

Gulf of California to Panama in deep water.

Serrivomer sector Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 320, Pl. LXIII, numerous stations of the *Albatross* and off Guaymas, 50 miles south, surface to 700 fathoms.

Genus 214. SPINIVOMER Gill and Ryder.

Spinivomer Gill and Ryder, Proc. U. S. Nat. Mus., VI, 1883, 261 (*S. goodei* Gill and Ryder).

565. *Spinivomer goodei* Gill and Ryder.

Gulf Stream.

Spinivomer goodei Gill and Ryder, Proc. U. S. Nat. Mus., VI, 1883, 261, Gulf Stream, at lat. 38° 19' 26'', long. 68° 20' 20'' in 2,361 fathoms.

Genus 215. LABICHTHYS Gill and Ryder.

Labichthys Gill and Ryder, Proc. U. S. Nat. Mus., VI, 1883, 261 (*L. carinatus* Gill and Ryder).

566. *Labichthys carinatus* Gill and Ryder.

Gulf Stream.

Labichthys carinatus Gill and Ryder, Proc. U. S. Nat. Mus., VI, 1883, 253, 255, 261, Gulf Stream, 41° 13' N., 65° 33' W.

567. *Labichthys bowersi* Garman.

Off Panama in deep water.

Labichthys bowersi Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 823, Pl. XIV, fig. 1, *Albatross* stations 3414, 3388, and 3361, in 1,168 to 2,232 fathoms.

Family 77. OPHICHTHYIDÆ. Snake eels**Genus 216. SPHAGEBRANCHUS Bloch.**

Sphagebranchus Bloch, Ichthyologia, IX, 1795, 88, pl. 419 (*S. rostratus* Bloch).

Cæcilia Lacépède, Hist. Nat. Poiss., II, 1800, 135 (*C. brandieriana* Lacépède = *Muræna cæca* Linnæus); not *Cæcilia* L. a genus of *Batrachia*.

Apterichthys Duméril, Zool. Anal., 112, 1806, 331 (*Muræna cæca* Linnæus).

Branderius Rafinesque, Anal. Nat., 1815, 93; substitute for *Cæcilia* Lacépède.

Ichthyapus Brisout de Barneville, Revue Zool., 1847, 219 (*I. acutirostris*).

Ophisuraphis Kaup, Apodal Fishes, 1856, 29 (*O. gracilis* Kaup).

568. *Sphagebranchus anguiformis* (Peters).

Open Atlantic, near the West Indies.

Ophichthys (Sphagebranchus) anguiformis Peters, Monatsber. Akad. Wiss. Berlin, 1876, 849, Atlantic Ocean, 15° 40' N., 23° 5' W.

569. *Sphagebranchus selachops* (Jordan and Gilbert).

Rocks about Cape San Lucas.

Apterichthys selachops Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 356, Cape San Lucas.

570. *Sphagebranchus ophioneus* Evermann and Marsh.

Porto Rico.

Sphagebranchus ophioneus Evermann and Marsh, Fish. Porto Rico, Bull. U. S. Fish Com., XX, 1900, 73, fig. 7, off Mayaguez, Porto Rico.

Genus 217. VERMA Jordan and Evermann.

Verma Jordan and Evermann, Fishes North and Mid. Amer., 1896, 374 (*Sphagebranchus kendalli* Gilbert).

571. *Verma kendalli* (Gilbert).
Coast of Florida, in rather deep water.
Sphagebranchus kendalli Gilbert, Bull. U. S. Fish Com., IX, 1889 (1891),
310, off west coast of Florida, 25° 34' N., 82° 50' W., in 25 fathoms.
- Genus 218. **CRYPTOPTERENCHELYS** Fowler.
Cryptopterus Kaup, Aalen. Fische Hamburg Mus., II, 1860 (*C. puncticeps*
Kaup); name preoccupied.
Cryptopterenchelys Fowler, Amer. Mus. Novitates, CLXII, March 31,
1925 (*Cryptopterus puncticeps* Kaup); substitute for *Cryptopterus*
Kaup, preoccupied.
572. *Cryptopterenchelys puncticeps* (Kaup).
Caribbean Sea.
Cryptopterus puncticeps Kaup, Aalen. Fische Hamburg Mus., II, 1860,
pl. 1, fig. 2, Puerto Cabello.
573. *Cryptopterenchelys frontalis* (Garman).
Off Panama.
Ophichthys (*Cryptopterus*) *frontalis* Garman, Mem. Mus. Comp. Zool.,
XXIV, 1899, 309, Albatross stations 3386, 3389, 3391.
- Genus 219. **MYRICHTHYS** Girard.
Pisodonophis Kaup, Apodal Fishes, 1856, 15 (in part; not type, as
restricted by Bleeker, which is *P. cancrivorus*).
Myrichthys Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 58 (*M.*
tigrinus Girard).
Ophisurus Swainson, Bleeker, etc. (not of Lacépède, nor of Risso, nor
Kaup, who restrict the name to *O. serpens*).
574. *Myrichthys tigrinus* Girard.
Pacific coast of Mexico; rather common about Mazatlan, and occa-
sionally ranging northward.
Myrichthys tigrinus Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 58,
Adair Bay, Oregon; doubtless an error.
Ophisurus xysturus Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881,
346, Mazatlan.
575. *Myrichthys xysturus* (Jordan and Gilbert).
Pacific coast of Mexico; common among the rocks about Mazatlan.
Ophichthys xysturus Jordan and Gilbert, Proc. U. S. Nat. Mus., IX,
1881, 346, Mazatlan, Mexico.
576. *Myrichthys oculatus* (Kaup).
Tropical Atlantic; Cuba to Surinam and Cape Verde Islands.
Pisodonophis oculatus Kaup, Apodal Fishes, 1856, 22, Curaçao.
Ophisurus latimaculatus Poey, Repertorio, II, 1867, 252, pl. 3, fig. 1,
Cuba.
577. *Myrichthys acuminatus* (Gronow).
West Indies, occasionally northward to Florida Keys.
Muraena acuminata Gronow, Fish. Brit. Mus., 1854, 21, Insula Div.,
Eustachii.
Pisodonophis guttulatus Kaup, Apodal Fishes, 1856, 21, fig. 10, Mar-
tinique.
Ophisurus longus Poey, Repertorio, II, 1867, 254, Cuba.
Ophichthys psavarius Poey, Anal. Soc. Española Hist. Nat., 1875, 196,
Cuba.
578. *Myrichthys pantostigmus* Jordan and McGregor.
Revillagigedo Islands.
Myrichthys pantostigmus Jordan and McGregor, Rept. U. S. Fish Com.,
XXIV, 1898 (1899), 274, pl. 4, Clarion Island.
- Genus 220. **LETHARCHUS** Goode and Bean.
Letharchus Goode and Bean, Proc. U. S. Nat. Mus., V, 1882, 436 (*L.*
velifer Goode and Bean).
579. *Letharchus pacificus* Osburn and Nichols.
Gulf of California.
Letharchus pacificus Osburn and Nichols, Bull. Amer. Mus. Nat. Hist.,
XXXV, 1916, 146, fig. 3, Cape San Lucas.

- 580. *Letharchus velifer*** Goode and Bean.
Coast of Florida, in rather deep water; known only from the Snapper Banks off Pensacola and Tampa.
Letharchus velifer Goode and Bean, Proc. U. S. Nat. Mus., V, 1882, 437, West Florida.
- Genus 221. *PISODONOPHIS*** Kaup.
Pisodonophis Kaup, Apodal Fishes, 1856, 17 (*P. cancrivorus* Kaup as restricted by Bleeker; later written *Pisoodonophis* by Kaup and since spelled *Pisodontophis* by purists).
- 581. *Pisodonophis daspilotus*** Gilbert.
Panama.
Pisodonophis daspilotus Gilbert, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2803, Panama.
- Genus 222. *OMOCHELYS*** Fowler.
Omoichelys Fowler, Proc. Acad. Nat. Sci. Phila., LXX, 1918, 3 (*Pisodonophis cruentifer* Goode and Bean).
Styletor Jordan, loc. cit., LXX, 1918 (1919), 343 (*Pisoodonophis cruentifer* Goode and Bean); name preoccupied.
- 582. *Omoichelys cruentifer*** (Goode and Bean).
Two specimens at station 1035 of U. S. Fish Commission steamer *Fish Hawk*, 39° 57' N., 69° 28' W., in 120 fathoms; four others at nearly same region in 245 fathoms.
Pisoodonophis cruentifer Goode and Bean, Oceanic Ichth., 1895, 147, fig. 166, Gulf Stream.
- Genus 223. *CALLECHELYS*** Kaup.
Callechelys Kaup, Apodal Fishes, 1856, 28 (*C. guichenoti* Kaup).
- 583. *Callechelys muræna*** Jordan and Evermann.
Snapper Banks off Pensacola.
Callechelys muræna Jordan and Evermann, Proc. U. S. Nat. Mus., IX, 1886, 466, Snapper Banks.
- Genus 224. *BASCANICHTHYS*** Jordan and Davis.
Bascanichthys Jordan and Davis, Rept. U. S. Fish Com., XVI, 1888, 621 (*Cæcula bascanium* Jordan).
- 584. *Bascanichthys bascanium*** (Jordan).
Egmont Key, Florida.
Cæcula bascanium Jordan, Proc. Acad. Nat. Sci. Phila., XXXVI, 1884, 48, Egmont Key, Fla.
- 585. *Bascanichthys scuticaris*** (Goode and Bean).
West coast of Florida.
Sphagebranchus scuticaris Goode and Bean, Proc. U. S. Nat. Mus., II, 1879, 343, Cedar Key.
Sphagebranchus teres Goode and Bean, loc. cit., V, 1882, 436, west Florida.
- 586. *Bascanichthys cylindricus*** Meek and Hildebrand.
Panama.
Bascanichthys cylindricus Meek and Hildebrand, Field Mus. Nat. Hist., Zool., XV, 1923, 152, Pl. VIII, Chame Point, Panama.
- 587. *Bascanichthys panamensis*** Meek and Hildebrand.
Panama.
Bascanichthys panamensis Meek and Hildebrand, Field Mus. Nat. Hist., Zool., XV, 1923, Pl. VII, 151, Chame Point, Panama.
- 588. *Bascanichthys bascanoides*** Osburn and Nichols.
Coast of Lower California.
Bascanichthys bascanoides Osburn and Nichols, Bull. Amer. Mus. Nat. Hist., XXXV, 1916, 147, fig. 4, San Cristobal, from the stomach of *Myciroperea venadorum*.
- 589. *Bascanichthys peninsulæ*** (Gilbert).
La Paz Bay, Gulf of California.
Callechelys peninsulæ Gilbert, Proc. U. S. Nat. Mus., XIV, 1891, 548, La Paz Bay, Lower California.

Genus 225. QUASSIREMUS Jordan and Davis.

Quassiremus Jordan and Davis, Rept. U. S. Fish Com., XVI, 1888, 622
(*Ophichthus evionthas* Jordan and Bollman).

590. *Quassiremus nothochir* (Gilbert).

San Josef Island, Gulf of California.

Ophichthys nothochir Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 58,
San Josef Island, Gulf of California.

591. *Quassiremus evionthas* (Jordan and Bollman).

Hood Island, Galapagos Archipelago.

Ophichthus evionthas Jordan and Bollman, Proc. U. S. Nat. Mus., XII,
1889, 154, Hood Island, Galapagos Archipelago.

Genus 226. OPHICHTHUS Thunberg and Ahl.

Ophichthus Ahl, De Muræna et Ophichtho, 1789 (*Muræna ophis* L.).

Cogrus Rafinesque, Caratteri, 1810, 62 (*C. maculatus* Rafinesque).

Centruropus Kaup, Apodal Fishes, 1856, 2 (*C. spadiceus* Kaup).

Pæclocephalus Kaup, loc. cit., 5 (*P. bonapartei* Kaup).

Microdontophis Kaup, loc. cit., 6 (*M. altipinnus* Kaup).

Cæcilophis Kaup, loc. cit., 6 (*C. compar* Kaup).

Herpetorhynchus Kaup, loc. cit., 7 (*H. ornatissimus* Kaup).

Elapsopsis Kaup, loc. cit., 9 (*E. versicolor* Kaup).

Murænopsis Kaup, loc. cit., 11 (*Murænophis ocellatus* LeSueur); the
name wrongly credited to LeSueur.

Scytalophis Kaup, loc. cit., 13 (*S. magnoculus* Kaup).

Leptorhinophis Kaup, loc. cit., 14 (*Ophisurus gomesi* Castelnau).

Uranichthys Poey, Repertorio, II, 1867, 256 (*Muræna havannensis*
Bloch and Schneider).

Oxyodontichthys Poey, Anales Soc. Española Hist. Nat., 1880, 254
(*macrurus*).

Ophichthys Bleeker, Günther, and of recent authors generally.

592. *Ophichthus ophis* (Linnæus).

West Indies; apparently not common.

? *Serpens marinus maculosus* Willoughby, Hist. Pisc., 1686, Tab. G., 9,
no locality.

? *Muræna ophis* Linnæus, Syst. Nat., ed. X, 1758, 244; after Willoughby;
may be identical with *Ophichthys regius*, a St. Helena species likewise
spotted with black.

Innomnado Parra, Dif. Piezas Hist. Nat., 1787, pl. 37, fig. 2, Habana.

Muræna havannensis Bloch and Schneider, Syst. Ichth., 1801, 491;
after Parra.

? *Ophisurus guttatus* Cuvier, Règne Anim., ed. 1, 1817, 232, Surinam;
after Bloch, pl. 154.

? *Muræna maculosa* Cuvier, loc. cit., Surinam; after *Ophisurus ophis*
Lacépède, which is based on Bloch, pl. 154.

Herpetorhynchus sulcatus Kaup, Apodal Fishes, 1856, 8, fig. 5, locality
unknown.

Uranichthys brachycephalus Poey, Repertorio, II, 1867, 257, Cuba.

593. *Ophichthus retropinnis* Eigenmann.

Snapper Banks off Pensacola, Fla.

Ophichthys retropinnis Eigenmann, Proc. U. S. Nat. Mus., X, 1887, 116,
Snapper Banks off Pensacola.

594. *Ophichthus guttifer* (Bean and Dresel).

Snapper Banks off Pensacola, Fla.

Ophichthys guttifer Bean and Dresel, Proc. Biol. Soc. Wash., II, 1884,
100, Snapper Banks.

595. *Ophichthus ocellatus* (LeSueur).

West Indies, south to Brazil and north to Pensacola.

Murænophis ocellatus LeSueur, Jour. Acad. Nat. Sci. Phila., V, 1825,
108, pl. 4, fig. 3, South America.

596. *Ophichthus triserialis* (Kaup).
Pacific coast of tropical America, rather common from Lower California to the Galapagos.
Muraenopsis triserialis Kaup, Apodal Fishes, 1856, 12, Pacific.
Herpetoichthys callisoma Abbott, Proc. Acad. Nat. Sci. Phila., XII, 1860, 475, locality unknown.
Ophisurus californiensis Garrett, Proc. Calif. Acad. Nat. Sci., III, 1863, 66, Margarita Bay, Lower California.
Ophichthus rugifer Jordan and Bollman, Proc. U. S. Nat. Mus., XII, 1889, 155, Charles Island, Galapagos; young with longer pectorals.
597. *Ophichthus biserialis* (Garman).
Galapagos Islands.
Ophichthys biserialis Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 311, Chatham Island.
598. *Ophichthus chamensis* Meek and Hildebrand.
Panama.
Ophichthys chamensis Meek and Hildebrand, Field Mus. Nat. Hist., Zool., XV, 1923, 155, Pl. VIII, fig. 2, Chame Point, Panama.
- Subgenus *SCYTALOPHIS* Kaup.
599. *Ophichthus gomesii* (Castelnau). *Sea serpent; Sea eel; Whipsnake eel.*
South Carolina to Rio Janeiro; generally common, especially about the Florida Keys and Cuba.
Ophisurus gomesii Castelnau, Anim. Amér. Sud, 1855, 84, pl. 44, fig. 2; Rio Janeiro.
Ophisurus chrysops Poey, Memorias, II, 1861, 321, Habana.
Oxydontichthys brachyurus Poey, Synopsis, 1868, 426; and Poey, Enumeratio, II, 1875, 155, Habana.
Oxydontichthys macrurus Poey, Anal. Soc. Española Hist. Nat., 1880, 254, Habana.
Oxydontichthys limbatus Poey, loc. cit., 254, Habana; name a substitute for *brachyurus*.
600. *Ophichthus zophochir* (Jordan and Gilbert).
Pacific Coast of Mexico, Guaymas to Acapulco.
Ophichthys zophochir Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 347.
601. *Ophichthus magniocus* (Kaup).
West Indies to Brazil; Aspinwall.
Scytalophis magniocus Kaup, Apodal Fishes, 1856, 13, fig. 7, St. Croix; Brazil.
602. *Ophichthus parilis* (Richardson).
Cuba to Brazil
Ophisurus parilis Richardson, Voy. *Erebus* and *Terror*, 1844, 105, West Indies
Ophichthys pauciporus Poey, Repertorio, II, 1868, 255, pl. 3, fig. 5.
- Genus 227. *MYSTRIOPHIS* Kaup.
Mystriophis Kaup, Apodal Fishes, 1856, 10 (*Ophisurus rostellatus* Richardson).
Crotolopsis Kaup, Abhandl. Natur. Verein Hamburg, IV, 1860, 12 (*C. quinquefasciatus* Kaup).
Echiopsis Kaup, loc. cit., 13, (*Ophisurus intertinctus* Richardson).
Macrodonopsis Poey, Repertorio, II, 1867, 251 (*M. mordax ophiurus* Poey).
- Subgenus *ECHIOPSIS* Kaup
603. *Mystriophis intertinctus* (Richardson).
West Indies, north to Pensacola, Fla.
Ophisurus intertinctus Richardson, Voy. *Erebus* and *Terror*, Fishes, 1844, 102, West Indies.
Ophisurus sugillatus Richardson, loc. cit., 103, probably West Indies.
Crotolopsis punctifer Kaup, Abhandl. Natur. Verein Hamburg, IV, 1860, 2, 12, pl. 1, fig. 3, Puerto Cabello.
Conger mordax Poey, Memorias, II, 1861, 319, Cuba.
Ophichthys schneideri Steindachner, Ich. Beitr., VIII, 1879, 66, Brazil.

Genus 228. SCYTALICHTHYS Jordan and Davis.

Scytalichthys Jordan and Davis, Rept. U. S. Fish Com., XVI, 1888, 635 (*Ophichthys miurus* Jordan and Gilbert).

604. Scytalichthys miurus (Jordan and Gilbert).

Cape San Lucas, Lower California.

Ophichthys miurus Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 357, Cape San Lucas.

Genus 229. BRACHYSOMOPHIS Kaup.

Brachysomophis Kaup, Apodal Fishes, 1856, 9 (*B. horridus* Kaup).

?*Achrophichthys* Bleeker, Poisson Ined. Murènes, Ned Tijdschr. Dierk., II, 242, 1865, (*A. typus*), young.

605. Brachysomophis crocodilinus (Bennett).

East Indies; a specimen recorded by Gunther from the Galapagos.

Ophisurus crocodilinus Bennett, Proc. Zool. Soc. Lond., 1833, 32, Mauritius.

Brachysomophis horridus Kaup, Apodal Fishes, 1856, 9, fig. 6, Otaheite [Tahiti].

?*Achrophichthys typus* Bleeker, Nederl. Tijdschr. Dierk., II, 1865, 242, Celebes.

Family 78. ACANTHENCHELYIDÆ

Genus 230. ACANTHENCHELYS Regan.

Acanthenchelys Regan, Ann. Mag. Nat. Hist., X, 1922, 296 (*A. spinicauda* Regan).

606. Acanthenchelys spinicauda Regan.

West Indies.

Acanthenchelys spinicauda Regan, Ann. Mag. Nat. Hist., X, 1922, 296, Island of Tobago.

Family 79. MORINGUIDÆ

Genus 231. MORINGUA Gray.

Moringua Gray, Zool. Misc., 1831, 9 (*M. lateralis* Gray).

Rataboura Gray, Illust. Ind. Zool., 1831, 95 (*Muræna ratibouri* Hamilton = *Rataboura hardwickei* Gray).

Pachyrurus Swainson, Nat. Hist. Fish, Reptiles and Amphib., II, 1839, 335 (*Moringua linearis* Gray; not of Agassiz, 1829).

Pseudomoringua Bleeker, Nederl. Tijdschr. Dierk., II, 1865, 114 (*Moringua lumbricoides* Richardson).

607. Moringua boekei Metzelaar.

Caribbean Sea.

Moringua boekei Metzelaar, Trop. Atl. Visschen, 1919, 17, Curaçao.

Genus 232. APHTHALMICHTHYS Kaup.

Aphthalmichthys Kaup, Apodal Fishes, 1856, 68 (*A. javanicus* Kaup).

608. Aphthalmichthys caribbeus Gill and Smith.

Porto Rico.

Aphthalmichthys caribbeus Gill and Smith, Science, XI, No. 286, 1900, 974, San Geronimo, near San Juan, Porto Rico.

Genus 233. STILBISCUS Jordan and Bollman.

Stilbiscus Jordan and Bollman, Proc. U. S. Nat. Mus., XI, 1888, 549 (*S. edwardsi* Jordan and Bollman).

609. Stilbiscus edwardsi Jordan and Bollman.

Green Turtle Cay, one of the Bahamas.

Stilbiscus edwardsi Jordan and Bollman, Proc. U. S. Nat. Mus., XI, 1888, 549, Green Turtle Cay, Bahamas.

Genus 234. GORDIICHTHYS Jordan and Davis.

Gordichthys Jordan and Davis, Rept. U. S. Fish Com., XVI, 1888, 644 (*G. irretitus* Jordan and Davis).

610. Gordiichthys irretitus Jordan and Davis.

Snapper Banks off west Florida in rather deep water.

Gordichthys irretitus Jordan and Davis, Rept. U. S. Fish Com., XVI, 1888, 644, off Pensacola, Fla.

Order T. COLOCEPHALI

Family 80. MURÆNIDÆ. Morays

Genus 235. ENCHELYCORE Kaup.

Enchelycore Kaup, Apodal Fishes, 1856, 72 (*Muræna nigricans* Bonnaterre).

611. *Enchelycore nigricans* (Bonnaterre).

West Indies; rather common.

Muræna unicolor maxillus elongatus teretiusculus, inferiore longiore, etc., Gronow, Zoophy., 1, 1763, 163, South America.

Muræna nigricans Bonnaterre, Encycl. Meth. Ichth., 1788, 34; after Gronow.

Muræna anguina Gronow, Cat. Fish., 1854, 18, South America.

Enchelycore euryrhina Kaup, Apodal Fishes, 1856, 73, no locality.

612. *Enchelycore nigrocastaneus* (Cope).

West Indies.

Gymnothorax nigrocastaneus Cope, Trans. Amer. Phil. Soc., XIV, 1871, 483, St. Martin.

?*Gymnothorax umbrosus* Poey, Ann. Lyc. Nat. Hist. N. Y., XI, 1874, 67, Habana, Cuba.

Genus 236. MURÆNA Linnæus. Morays.

Muræna Artedi, Gen. Pisc., 1738, 23, in part; includes all eels.

Muræna Klein, Hist. Pisc., 1742, 28, in part; includes all eels without pectoral fins.

Muræna Linnæus, Syst. Nat., ed. X, 1758, 244 (*helena*, etc.); includes all eels.

Muræna Thunberg and Ahl, De *Muræna* et *Ophichthus*, 1789, 6 (restricted to *helena*, etc.), includes species without pectoral fins.

Muræna Gunther and of authors generally; not of Bleeker.

Murænophis Lacépède, Hist. Nat. Poiss., V, 1803, 630 (*helena*, etc.).

Limamuræna Kaup, Apodal Fishes, 1856, 95 (*L. guttata* Kaup).

613. *Muræna melanotis* (Kaup).

Tropical Atlanta, from Africa to South America.

Limamuræna melanotis Kaup, Aalen. Fische Hamburg Mus., 1859, 27, pl. 4, fig. 3.

614. *Muræna lentiginosa* Jenyns. *Morena pinta*.

Pacific coast of America, from Gulf of California to Galapagos.

Muræna lentiginosa Jenyns, Voy. *Beagle*, Zool., 1842, 143, Galapagos Islands.

Muræna pinta Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 345, Mazatlan.

615. *Muræna retifera* Goode and Bean.

Coast of South Carolina, in rather deep water; one taken at Tucker-nuck Island, Mass.

Muræna retifera Goode and Bean, Proc. U. S. Nat. Mus., V, 1882, 435, off Charleston.

616. *Muræna argus* (Steindachner).

Gulf of California.

Gymnothorax (Limamuræna) argus Steindachner, Ichth. Notizen, X, 1870, 17, Pl. IV, Altata, Gulf of California.

617. *Muræna insularum* Jordan and Davis.

Galapagos Islands.

Muræna insularum Jordan and Davis, Rept. U. S. Fish Com., XVI, 1888, 609, Chatham Island.

618. *Muræna myrialeucosticta* Fowler.

West Indies.

Muræna myrialeucosticta Fowler, Proc. Acad. Nat. Sci. Phila., LXIV, 1912, 18, St. Martin.

619. *Muræna clepsydra* Gilbert.

Panama.

Muræna clepsydra Gilbert, in Jordan and Evermann, Fish. North and Mid. Amer., 1898, 2805, Panama.

Genus 237. PYTHONICHTHYS Poey.

Pythonichthys Poey, Repertorio, II, 1867, 265 (*P. sanguineus* Poey).

620. *Pythonichthys sanguineus* Poey.
Coast of Cuba, in rather deep water.
Pythonichthys sanguineus Poey, Repertorio, II, 1867, 265, pl. 2, fig. 7, Cuba.
- Genus 238. *RABULA* Jordan and Davis.
Rabula Jordan and Davis, Rept. U. S. Fish Com., XVI, 1888, 589
(*R. aquæ-dulcis* Jordan and Davis=*Rabula davis* Fowler, not *Muraena aquæ-dulcis* Cope).
621. *Rabula davis* Fowler.
Said to be from San Diego, which is doubtful.
Rabula davis Fowler, Proc. Acad. Nat. Sci. Phila., LXIV, 1912, 21;
after *Rabula aquæ-dulcis* Jordan and Davis; not of Cope.
622. *Rabula marmorea* (Valenciennes).
Galapagos Islands.
Muraenophis marmoreus Valenciennes, Voy. *Vénus*, Zool., 1855, 347, pl. 10, fig. 1, Galapagos.
623. *Rabula panamensis* (Steindachner).
Pacific coast of Central America.
Muraena panamensis Steindachner, Ichth. Beitr., V, 1876, 19, Panama.
624. *Rabula longicauda* (Peters).
Tropical Atlantic, off the West Indies.
Muraena longicauda Peters, Monatsberichte, 1876, 850, open Atlantic,
with *Sphagebranchus anguiformis*.
- Genus 239. *GYMNOTHORAX* Bloch. *Morays*.
Gymnothorax Bloch, Naturgesch. Ausl. Fische, IX, 1795, 83, restricted
to allies of *M. afra* by Gunther (*G. muraena* Bloch).
Lycondontis McClelland, Calcutta Jour. Nat. Hist., V, No XVIII,
1844, 173 (*L. literata*=*tile*).
Throndontis McClelland, loc. cit., V, No. XVIII, 1844, 174 (*T. reticulata*=*tesselata*).
Eurymyctera Kaup, Apodal Fishes, 1856, 72, (*E. crudelis* Kaup).
Polyuranodon Kaup, loc. cit., 96 (*Muraena polyuranodon* Bleeker).
Tæniophis Kaup, Aalen. Fische Hamburg Mus., Nachträge, 1859, 10
(*T. westphali* Kaup).
Priodontophis Kaup, loc. cit., 1859, 22 (*Gymnothorax ocellatus* Agassiz).
Neomuraena Girard, U. S. Mex. Bound. Surv., Fishes, 1859, 76 (*N. nigromarginata* Girard=*ocellatus*).
Pseudomuraena Johnson, Proc., Zool. Soc. Lond., 1860, 167 (*P. madeirensis* Johnson).
625. *Gymnothorax mordax* (Ayres). *Conger eel of California*.
Point Conception to Cedros Island; abundant about Santa Barbara Islands.
Muraena mordax Ayres, Proc. Calif. Acad. Nat. Sci., II, 1859, 30, Cerros [Cedros] Island.
626. *Gymnothorax moringa* (Cuvier). *Common spotted moray; Hamlet; Bel*.
Gulf of Mexico, Pensacola, and West Indies to Rio Janeiro and St. Helena.
Muraena maculata nigra; the black moray, Catesby, Nat. Hist. Carolinas, etc., 1738, pl. 21, Bahamas.
? *Gymnothorax afer* Bloch, Syst. Ichth., 1795, pl. 417, Africa.
Muraena moringa Cuvier, Règne Anim., ed. 2, II, 1829, 352; after Catesby.
Gymnothorax rostratus Agassiz, Spix, Pisc. Brasil, 1830, 91, pl. 50a, Brazil.
Muraena moringua Richardson, Voy. *Erebus* and *Terror*, Fishes, 1844, 89, Jamaica.
Muraena punctata Gronow, Cat. Fish., 1854, 18, North America.
Muraenophis curvilineata Castelnau, Anim. Amér. Sud, Poiss., 1855, 81, pl. 42, fig. 2, Rio Janeiro.
Muraenophis caramuru Castelnau, loc. cit., 85, pl. 43, Bahia.
Gymnothorax flavoscriptus Poey, Enumeratio, 1875, 158, Cuba.
Gymnothorax picturatus Poey, Anal. Soc. Española Hist. Nat., 1880, 257, Cuba.

627. *Gymnothorax funebris* Ranzani. *Black moray; Morena verde*.
Tropical America; Rio Janeiro; West Indies.
Muraena maculata nigra et viridis (the moray) Catesby, Nat. Hist. Carolinas, etc., 1738, pl. 20, Bahamas.
Gymnothorax funebris Ranzani, Nov. Com. Acad. Sci. Inst. Bonon., IV, 1840, 76, Brazil.
Muraena lineopinnis Richardson, Voy. *Erebus and Terror*, Fishes, 1844, 89, Puerto Cabello.
Muraena infernalis Poey, Memorias, II, 1861, 347, 354, Cuba.
Thyrsoidea concolor Abbott, Proc. Acad. Nat. Sci. Phila., XII, 1860, 479, Vera Cruz.
Muraena erebus Poey, Memorias, II, 1861, 426, Cuba.
628. *Gymnothorax castaneus* (Jordan and Gilbert).
Pacific coast of Mexico; common about Mazatlan; representing *G. funebris* of the West Indies
Sidera castanea Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 647, Mazatlan.
629. *Gymnothorax sanctæ-helenæ* (Günther).
Tropical Atlantic; recorded from St. Helena and the Bermudas.
Muraena sanctæ-helenæ Gunther, Cat., VIII, 1870, 115, St. Helena.
630. *Gymnothorax vicinus* (Castelnau).
Tropical Atlantic, Cuba to Africa and Brazil.
Muraenophis vicina Castelnau, Anim. Amér. Sud, Poiss., 1855, 81, pl. 42, fig. 4, Bahia.
Gymnothorax versipunctatus Poey, Enumeratio, 1875, 156, Cuba.
Thyrsoidea maculipinnis Kaup, Apodal Fishes, 1856, 86, Gold Coast.
631. *Gymnothorax punctarenæ* Fowler.
Puntarenas, Costa Rica, one specimen known.
Gymnothorax punctarenæ Fowler, Copeia, No. 39, Jan. 24, 1917, 3, Puntarenas, Costa Rica.
632. *Gymnothorax brunneus* Nichols.
Bermudas.
Gymnothorax brunneus Nichols, Proc. Biol. Soc. Wash., XXXIII, 1920, 59, Bermuda.
633. *Gymnothorax virescens* Poey.
Cuba.
Gymnothorax virescens Poey, Enumeratio, 1875, 156, Cuba.
634. *Gymnothorax polygonius* Poey.
Cuba.
Gymnothorax polygonius Poey, Ann. Lyc. Nat. Hist. N. Y., XI, 1870, 68, Habana.
635. *Gymnothorax dovii* (Günther). *Morena pintita*.
Gulf of California to the Galapagos Archipelago.
Muraena dovii Gunther, Cat., VIII, 1870, 103, Panama.
Muraena pintita Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 346, Mazatlan.
636. *Gymnothorax conspersus* Poey.
Cuba to Rio Janeiro.
Muraenophis punctata Castelnau, Anim. Amér. Sud, 1855, 82, Rio Janeiro; not *Gymnothorax punctatus* Bloch.
Gymnothorax conspersus Poey, Repertorio, II, 1868, 259, Cuba.
637. *Gymnothorax jordani* (Evermann and Marsh).
Porto Rico.
Lycondonitis jordani Evermann and Marsh, Fish. Porto Rico, Bull. U. S. Fish Com., XX, 1900 (1902), pt. 1, 78, pl. 2; off Mayaguez, Porto Rico.
638. *Gymnothorax miliaris* (Kaup).
West Indies.
Thyrsoidea miliaris Kaup, Apodal Fishes, 1856, 90, Martinique.
Muraena multocellata Poey, Memorias, II, 1861, 324, Cuba; based on specimens with smaller spots than usual.
Gymnothorax scriptus Poey, Repertorio, II, 1868, 261, Cuba.
Muraena myrialeucostictus Fowler, Proc. Acad. Nat. Sci. Phila., LXIV, 1912, 18, St. Martins, West Indies.

639. *Gymnothorax elaboratus* (Poey).
Cuba.
Muraena elaborata Poey, *Memorias*, II, 1861, 323, Cuba.
640. *Gymnothorax obscuratus* Poey.
Cuba.
Gymnothorax obscuratus Poey, *Ann. Lyc. Nat. Hist. N. Y.*, IX, 1870, 320, Cuba.
641. *Gymnothorax chlevastes* (Jordan and Gilbert).
Galapagos Islands.
Sidera chlevastes Jordan and Gilbert, *Proc. U. S. Nat. Mus.*, VI, 1883, 208, Galapagos.
642. *Gymnothorax albimentis* (Evermann and Marsh).
Porto Rico.
Lycodontis albimentis Evermann and Marsh, *Fish. Porto Rico*, *Bull. U. S. Fish Com.*, XX, 1900 (1902), pt. 1, 78, fig. 9; off Culebra Island.
643. *Gymnothorax concolor* (Abbott).
West Indies.
Thyrsoidea concolor Abbott, *Proc. Acad. Nat. Sci. Phila.*, XII, 1860, 479, Vera Cruz.
? *Muraena erebus* Poey, *Memorias*, II, 1861, 426, Cuba.
644. *Gymnothorax aquædulcis* (Cope).
Rio Grande, Costa Rica.
Muraena aquædulcis Cope, *Rept.*, U. S. Geol. Surv., 1871 (1872), 474; said to be from Rio Grande, Costa Rica. It is evidently not a fresh-water fish. According to Fowler, it is not a *Rabula*, the dorsal beginning well before the gill opening.
645. *Gymnothorax carcinognathus* Fowler.
West Indies.
Gymnothorax carcinognathus Fowler, *Proc. Acad. Nat. Sci. Phila.*, LXIV, 1912, 22, St. Martins, West Indies.
646. *Gymnothorax verilli* (Jordan and Gilbert).
Panama; one specimen known.
Sidera verrilli Jordan and Gilbert, *Proc. U. S. Nat. Mus.*, V, 1882, 623, Panama.
647. *Gymnothorax ocellatus* Agassiz. *Spotted moray*; *Moray eel*.
Pensacola to Rio Janeiro.
Gymnothorax ocellatus Agassiz, *Pisc. Brasil.*, 1828, 91, pl. 50b, Brazil.
648. *Gymnothorax ocellatus saxicola* Jordan and Davis.
Snapper Banks off Pensacola and deep water off Cuba.
Muraena meleagris Quoy and Gaimard, *Voy. Freycinet*, *Zool.*, 1824, 245, pl. 52, fig. 2; not of Shaw.
Gymnothorax ocellatus saxicola Jordan and Davis, *Rept. U. S. Fish Com.*, XVI, 1888, 606, Snapper Banks off Pensacola.
649. *Gymnothorax ocellatus nigromarginatus* (Girard).
Coast of west Florida and Texas.
Neomuraena nigromarginata Girard, *U. S. Mex. Bound. Surv.*, 1859, 76, pl. 41, St. Joseph Island, Tex.
- Genus 240. *SIDEEA* Kaup.
Siderea Kaup, *Uebersicht der Aale*, 1856, 59 (*Muraena pfeifferi* Bleeker = *Muraena picta* Ahl); name later written *Sidera*.
650. *Siderea picta* (Ahl).
South Seas; East Indies; Hawaii; Revillagigedos; taken at Clarion Island.
Muraena picta Ahl, *De Muraena et Ophichtho*, VI, 1787, 6, tab. 2.
Muraenophis pantherina Lacépède, *Hist. Nat. Poiss.*, V, 1803, 628.
Muraena variegata Quoy and Gaimard, *Voy. Uranie*, 1824, 246, pl. 52.
Muraena lita Richardson, *Voy. Erebus and Terror*, 1844, 84, Moluccas.
Muraena siderea Richardson, *loc. cit.* 85, pl. 48, Australia.
Muraena pfeifferi Bleeker, *Nat. Tijds. Ned. Ind.*, V, 173, Celebes.

Genus 241. AHYNNODONTOPHIS Fowler.

Ahynnodontophis Fowler, Proc. Acad. Nat. Sci. Phila., LXIV, 1912, 25 (*A. stigmatotus* Fowler).

651. Ahynnodontophis stigmatotus Fowler.

West Indies (?).

Ahynnodontophis stigmatotus Fowler, Proc. Acad. Nat. Sci. Phila., LXIV, 1912, 25; supposed to be from the West Indies.

Genus 242. ECHIDNA Forster.

Echidna Forster, Bibliotheca Banksiae, 1777, 181 (*E. variegata* Forster).
Gymnomuraena Lacépède, Hist. Nat. Poiss., V, 1803, 648 (*G. dolata* Lacépède).

Gymnopsis Rafinesque, Anal. Nat., 1815, 93 (substitute for *Gymnomuraena*).

Megaderia Rafinesque, loc. cit., 93 (substitute for *Echidna* Forster).

Molarii Richardson, Voy. Erebus and Terror, 1844, 79 (*Muraena ophis* = *Echidna nebulosa*).

Pacilophis Kaup, Apodal Fishes, 1856, 98 (*Gymnothorax catenatus* Bloch).

652. Echidna catenata (Bloch).

West Indies, from Bermuda to Surinam; our specimens from Santa Lucia.

Muraena seu conger brasiliensis Seba, Thesaurus, II, 1738, 72, pl. 69, figs. 4, 5, Brazil.

Gymnothorax catenatus Bloch, Naturgesch. Ausl. Fische, XII, 1795, 74, pl. 415, fig. 1, Coromandel; an error.

Muraena sordida Cuvier, Règne Anim., ed. 1, 1817, 233, after Seba.

Muraenophis catenula Lacépède, Hist. Nat. Poiss., V, 1803, 628 and 641, Palmerston Island; after Bloch.

Echidna fuscomaculata Poey, Repertorio, II, 1868, 263, Cuba.

Echidna flavoscripta Poey, loc. cit., 264, Cuba.

653. Echidna nocturna (Cope).

Pacific coast of Mexico, the two known specimens from the Rio Grande, in Costa Rica and from Cape San Lucas.

Pacilophis nocturnus Cope, Rept. U. S. Geol. Surv. Mont., 1871 (1872), 474, Rio Grande at San José, Costa Rica.

654. Echidna scabra Garman

Cocos Island.

Echidna scabra Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 314, Cocos Island.

655. Echidna cocosa Garman.

Cocos Island.

Echidna cocosa Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 313, Cocos Island.

656. Echidna chionostigma Fowler.

Gulf of California (?).

Echidna chionostigma Fowler, Proc. Acad. Nat. Sci. Phila., LXIV, 1912, 28; supposed to be from the Gulf of California.

Genus 243. UROPTERYGIUS Rüppell.

Gymnomuraena Lacépède, Hist. Nat. Poiss., V, 1803, 648 (*G. dolata* Lacépède); restricted first by Kaup, in 1856, to *dolata*, which is a species of *Echidna*.

Ichthyophis Lesson, Voy. Coquille, II, 1830, 120 (*I. pantherinus* Lesson); not of Fitzinger, 1829, a genus of reptiles.

Uropterygius Rüppell, Neue Wirbelthiere, Fische, 1835, 83 (*Nebrius concolor* Rüppell).

Muraenoblenna Kaup, Apodal Fishes, 1856, 67, (*Ichthyophis tigrina* Lesson); not of Lacépède, 1803, which is *Myxine*.

Scutica Jordan and Evermann, Fish. North and Mid. Amer., 1896, 403, (*Uropterygius neoturus* Jordan and Gilbert).

Subgenus SCUTICA Jordan and Evermann.

657. *Uropterygius necturus* (Jordan and Gilbert).

Gulf of California.

Gymnomuraena nectura Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 356, Cape San Lucas.

Genus 244. CHANNOMURÆNA Richardson.

Channo-Muræna Richardson, Voy. *Erebus* and *Terror*, 1844, 96 (*Ichthyophis vittata* Richardson).658. *Channomuræna vittata* (Richardson).

Coast of Cuba

Raro Parra, Dif. Piezas Hist. Nat., 1780, 66, pl. 30, fig. 3, Habana.*Ichthyophis vittatus* Richardson, Voy. *Sulphur*, Fishes, 1844, 114, pl. 53, figs. 7-9; locality uncertain.*Channomuræna cubensis* Poey, Repertorio, II, 1867, 266, pl. 3, fig. 6, Cuba.

Order U. LYOMERI

Family 81. SACCOPHARYNGIDÆ. Gulpers

Genus 245. SACCOPHARYNX Mitchill.

Saccopharynx Mitchill, Ann. Lyc. Nat. Hist. N. Y., 1824, 86 (type afterwards called *S. flagellum* Mitchill).*Ophiognathus* Harwood, Philos. Trans., 1827, 277 (*O. ampullaceus* Harwood).659. *Saccopharynx ampullaceus* (Harwood).

Atlantic.

Ophiognathus ampullaceus Harwood, Philos. Trans., 1827, 52, Atlantic.*Saccopharynx flagellum* Cuvier, Règne Anim., ed. 2, 1829, 355, Atlantic; after Mitchill.*Saccopharynx chordatus* Storer, Synopsis, 1846, 237, open Atlantic; after Mitchill.

Family 82. EURYPHARYNGIDÆ. Swallowers

Genus 246. GASTROSTOMUS Gill and Ryder.

Gastrostomus Gill and Ryder, Proc. U. S. Nat. Mus., VI, 1883, 271 (*G. bairdii* Gill and Ryder).660. *Gastrostomus bairdii* Gill and Ryder.

Deep water off Newfoundland Banks and Davis Strait.

Gastrostomus bairdii Gill and Ryder, Proc. U. S. Nat. Mus., VI, 1883, 271, off the Grand Banks of Newfoundland.661. *Gastrostomus pacificus* Bean.

Pacific Ocean in deep water.

Gastrostomus pacificus Bean, Smiths. Misc. Coll., XLV, 1904, 254, fig. 31; halfway between Midway Island and Guam.

Series OSTARIOPHYSI

Order V. HETEROGNATHI

Family 83. CHARACINIDÆ. Characins

Genus 247. PHENAGONIATES Eigenmann and Wilson.

Phenagoniates Eigenmann and Wilson, Indiana Univ. Studies, XIX, 1914, 2 (*P. wilsoni* Eigenmann = *Ræboides macrolepis* Meek and Hildebrand).662. *Phenagoniates macrolepis* (Meek and Hildebrand).

Atlantic slope of Panama.

Ræboides macrolepis Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X, 1913, 84, Rio Cupe, Boca de Cupe, Tuyra River Basin.

Genus 248. COMPSURA Eigenmann.

Compsura Eigenmann, Mem. Carnegie Mus., VII, 1915, 60 (*Compsura heterura* Eigenmann).

663. *Compsura gorgonæ* (Evermann and Goldsborough).

Both slopes of Panama.

Cheirodon gorgonæ Evermann and Goldsborough, Proc. Biol. Soc. Wash., XXII, 1909, 99, figs. 1, 3, Gorgona, Atlantic slope, Panama Canal Zone.**Genus 249. PSEUDOCHEIRODON Meek and Hildebrand.***Pseudocheirodon* Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X, 1916, 275 (*P. affinis* Meek and Hildebrand).**664. *Pseudocheirodon affinis* Meek and Hildebrand.**

Both slopes of Panama.

Cheirodon insignis Evermann and Goldsborough, Proc. Biol. Soc. Wash., XXII, 1909, 98, Tabernilla, Atlantic slope; not of Steindachner.*Pseudocheirodon affinis* Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X, 1916, 275, Pl. XVIII, Rio Gatun, Monte Liria, Canal Zone, Panama.**Genus 250. GEPHYROCHARAX Eigenmann.***Gephyrocharax* Eigenmann, Indiana Univ. Studies, No. 16, 1912, 23 (*G. chocoensis* Eigenmann).**665. *Gephyrocharax atricaudatus* (Meek and Hildebrand).**

Both slopes, Canal Zone, Panama.

Deuterodon atricaudata Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X, 1912, 68, Rio Frijoles, Canal Zone.*Gephyrocharax atricaudata* Eigenmann, Indiana Univ. Studies, No. 20, 1914, 41, Panama Canal Zone.**666. *Gephyrocharax intermedius* Meek and Hildebrand.**

Rio Chama, Panama.

Gephyrocharax intermedius Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X, 1916, 278, Rio Chama.**Genus 251. ASTYANAX Baird and Girard.***Astyanax* Baird and Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 26 (*A. argentatus* Baird and Girard = *Tetragonopterus mexicanus* Filippi).*Pecilurichthys* Gill, Ann. Lyc. Nat. Hist. N. Y., VI, 1858, 417 (*P. brevoorti* Gill).All the species mentioned below belong to the subgenus or genus *Astyanax*, distinguished from *Tetragonaptenes* Cuvier by the absence of teeth on the maxillary and by the shorter anal of less than 40 rays.**667. *Astyanax mexicanus* (Filippi).**

Rio Balsas and Rio Tehuacan to tributaries of the Rio Grande in Texas, the northernmost species of the multitude of Characins.

Tetragonopterus mexicanus Filippi, Guerin's Rev. Mag. Zool., 1853, 166, Mexico.*Astyanax argentatus* Baird and Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 27, Comanche Spring and Brownsville, Tex.*Tetragonopterus fulgens* Bocourt, Ann. Sci. Nat. Zool., IX, 62, 1868.*Tetragonopterus nitidus* Vaillant and Pellegrin, Bull. Mus. Hist. Nat. Paris, 1904, 324.*Tetragonopterus brevimanus* Günther, Cat., V, 1864, 325, Yzabel; Rio San Geronimo, Guatemala.**668. *Astyanax æneus* (Günther).**

Oaxaca, Mexico, and Rio Chagres, and other streams about Panama, south to Brazil.

Tetragonopterus æneus Günther, Proc. Zool. Soc. Lond., 1860, 319, Oaxaca, Mexico.*Tetragonopterus microphthalmus* Günther, Cat., V, 1864, 324, Lake Amatitlan, Guatemala; Rio Rimag.*Tetragonopterus panamensis* Gunther, loc. cit., 324, Pacific coast of Panama; Yzabel.*Tetragonopterus humilis* Günther, loc. cit., 327, Lake Amatitlan, Guatemala.*Tetragonopterus ærstedii* Krøyer, in Lütken, Ict. Bidrag., III, 1874, 229, Rio San Juan, Nicaragua.

669. *Astyanax petenensis* (Gunther).
Nicaragua to western Ecuador; southeast to Argentine Republic.
Tetragonopterus petenensis Gunther, Cat., V, 1864, 326, Lake Peten, Nicaragua.
670. *Astyanax scabripinnis* (Jenyns).
Jamapa, Mexico, to Rio Janeiro.
Tetragonopterus scabripinnis Jenyns, Voy. *Beagle*, Zool., Fishes, 1842, 125, Rio Janeiro, Brazil.
671. *Astyanax macrophthalmus* (Regan).
Streams of eastern Mexico.
Tetragonopterus macrophthalmus Regan, Biol. Centrali-Amer., 1915, 171, eastern Mexico; Monzorangi, Vera Cruz.
672. *Astyanax nasutus* Meek.
Astyanax nasutus Meek, Field Mus. Nat. Hist., Zool., VII, 1907, 108, Lake Managua, Nicaragua.
673. *Astyanax fasciatus* (Cuvier).
Coasts of Brazil, from Para to Napo and on the Pacific side from Panama to Ecuador.
Tetragonopterus fischeri Steindachner, Flussfische Südamerikas, I, 1879, 166, Mamo River at Chepo, Colombia.
674. *Astyanax ruberrimus* Eigenmann.
Panama, both slopes.
Astyanax ruberrimus Eigenmann, Indiana Univ. Studies, XVIII, 1913, 25, Isthmeria, Atlantic slope.
675. *Astyanax brevoortii* (Gill).
Island of Trinidad.
Pacilurichthys brevoortii Gill, Ann. Lyc. Nat. Hist. N. Y., VI, 1858, 417, Trinidad.
Pacilurichthys taenirurus Gill, loc. cit., 418, Trinidad.
Pacilurichthys pulcher Gill, loc. cit., 419, Trinidad.
- Genus 252. **BRYCONAMERICUS** Eigenmann.
Bryconamericus Eigenmann, Ann. Carnegie Mus., IV, 1907, 139, (*B. exodon* Eigenmann).
676. *Bryconamericus emperador* (Eigenmann and Ogle).
Streams of both slopes, Panama.
Astyanax emperador Eigenmann and Ogle, Proc. U. S. Nat. Mus., XXXIII, 1907, 26, Empire Station, Panama.
677. *Bryconamericus cascajalensis* Meek and Hildebrand.
Panama.
Bryconamericus cascajalensis Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X, 1916, 284, Rio Cascajal, Puerto Bello, Panama.
- Genus 253. **HEMIBRYCON** Günther.
Hemibrycon Günther, Cat., V, 1864, 318 (*Tetragonopterus (Hemibrycon) polyodon* Günther).
678. *Hemibrycon dariensis* Meek and Hildebrand.
Basin of Rio Tuyra, Panama.
Hemibrycon dariensis Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X, 1916, 285, Pl. XX, mouth of Rio Yape, Panama.
- Genus 254. **HYPHESOBRYCON** Durbin.
Hyphessobrycon Durbin, in Eigenmann, Bull. Mus. Comp. Zool., LII, 1908, 100, (*Hemigrammus compressus* Meek).
Dermatocheir Durbin, Ann. Carnegie Mus., 1909, 55 (*D. calablepta* Durbin).
679. *Hyphessobrycon panamensis* Durbin.
Rio Chagres Basin, Panama.
Hyphessobrycon panamensis Durbin, in Eigenmann, Bull. Mus. Comp. Zool., LII, 1908, 101, Rio Boqueron, Atlantic slope, Panama.
Hemigrammus minutus Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X, 1912, 67, Agua Clara, Panama, Atlantic side of Isthmus of Panama.

Genus 255. HEMIGRAMMUS Gill.

Hemigrammus Gill, Ann. Lyc. Nat. Hist. N. Y., VI, 1858, 420 (*H. unilineatus* Gill).

680. Hemigrammus unilineatus (Gill).

Streams of Trinidad.

Pæciliurichthys unilineatus Gill, Ann. Lyc. Nat. Hist. N. Y., VI, 1854, 420, Trinidad.

Genus 256. CREAGRUTUS Günther.

Creagrutus Günther, Cat., V, 1864, 339 (*Leporinus mulleri* Günther).

681. Creagrutus notropoides Meek and Hildebrand.

Rio Chagres, Panama.

Creagrutus notropoides Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X, 1912, 68, Rio Indio, Chagres basin.

682. Creagrutus simus Meek and Hildebrand.

Rio Tuyra Basin, Panama.

Creagrutus simus Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X, 1913, 85, Rio Cupe, Cituro, Panama.

Genus 257. RÆBOIDES Günther.

Ræboides Günther, Cat., V, 1864, 347 (*Epicyrtus microlepis* Reinhardt).

683. Ræboides guatemalensis (Günther).

Rio Chagres and streams of Guatemala.

Anacyrtus guatemalensis Günther, Cat., V, 1864, 347, Rio Chagres; Huamuchal.

684. Ræboides salvadoris Hildebrand. Plateado; Sardina; Alma seca; Umina.

Lakes Guija and Metapan and Rio Sucio and Lempa, El Salvador.

Ræboides salvadoris Hildebrand, Bull. U. S. Bur. Fish., XLI, 1925, 246, fig. 9, Rio Sucio, Sitio del Niño.

685. Ræboides occidentalis Meek and Hildebrand.

Pacific slope of Panama and southward.

Ræboides occidentalis Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X, 1916, 293, Pl. XXIII, Rio Cardenas, Corozal, Panama.

Genus 258. BRYCON Muller and Troschel.

Brycon Müller and Troschel, Horæ Ichth., I, 1845, 15 (*B. falcatus* Müller and Troschel).

Chalcinopsis Kner, Sitzungsab. Akad. Wiss. München, 1863, 226 (*C. striatulus* Kner).

Megalobrycon Günther, Proc. Zool. Soc. Lond., 1869, 423 (*Brycon cephalus* Günther).

686. Brycon striatulus (Kner).

Rio Chagres and streams about Panama.

Chalcinopsis striatulus Kner, Sitzungsab. Akad. Wiss. München, 1863, 226, Panama.

Chalcinopsis chagresensis Kner, loc. cit., 1863, 226, Rio Chagres.

687. Brycon guatemalensis Regan.

Brycon guatemalensis Regan, Biol. Centrali-Amer., 1908, 168, lakes and streams of Guatemala and Nicaragua.

688. Brycon petrosus Meek and Hildebrand. Pipon.

Chagres River basin, Atlantic slope of Panama.

Brycon petrosus Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X, 1913, 84, Pl. XXIV, 1916; upper Chagres, Panama.

689. Brycon dentex Günther.

Yucatan to Ecuador.

Brycon dentex Günther, Proc. Zool. Soc. Lond., 1860, 240, Esmeraldas, Ecuador.

690. Brycon argenteus Meek and Hildebrand.

Rio Charrera, and in Rio Bayano and Rio Tuyra basins, Pacific slope of Panama.

Brycon argenteus Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X, 1913, 84, Pl. XXV, 298, 1916; Rio Aruza, Aruza, Panama.

691. *Brycon oligolepis* Regan.
Streams of Panama
Brycon oligolepis Regan, Ann. Mag. Nat. Hist., IX, 1913, 462, Rio Condoto, Panama.
- Genus 259. **BRAMOCHARAX** Gill.
Bramocharax Gill, Proc. Acad. Nat. Sci. Phila., XXIX, 1877, 189 (*B. bransfordi* Gill).
692. *Bramocharax bransfordi* Gill.
Lake Nicaragua.
Bramocharax bransfordi Gill, Proc. Acad. Nat. Sci. Phila., XXIX, 1877, 190, Lake Nicaragua.
693. *Bramocharax elongatus* Meek. *Sabalito*.
Bramocharax elongatus Meek, Field Mus. Nat. Hist., Zool., VII, 1907, 110, Lake Managua, Nicaragua.
- Genus 260. **PIABUCINA** Cuvier and Valenciennes.
Piabucina Cuvier and Valenciennes, Hist. Nat. Poiss., XXII, 1849, 122 (161) (*P. erythrinoides* Cuvier and Valenciennes).
694. *Piabucina panamensis* Gill.
Tripoli, Atlantic slope of the Isthmus of Panama.
Piabucina panamensis Gill, Proc. Acad. Nat. Sci. Phila., XXVIII, 1876, 336, Rio Tripoli, Isthmus of Panama.
695. *Piabucina festæ* Boulenger.
Panama.
Piabucina festæ Boulenger, Bull. Mus. Torino, XIV, 1899, 346, I, Rio Sabina, Panama.
- Genus 261. **HOPLIAS** Gill.
Macrodon Müller, in Wiegmann's Archiv, 1843 163, (*Macrodon trahira* = *Synodus malabaricus* Schneider); name preoccupied in *Sciænidæ*.
Hoplias Gill, Proc. U. S. Nat. Mus., XXVI, 1903, 1016 (*Synodus malabaricus* Schneider).
696. *Hoplias malabaricus* (Bloch).
Rio Tuyra Basin; both slopes of Colombia; Ecuador, and south to Brazil.
Esox malabaricus Bloch, Naturgesch. Ausl. Fische, pt. 8, 1794, 149, pl. 392, Tranquebar; locality wrongly given.
Macrodon tereira Cuvier and Valenciennes, Hist. Nat. Poiss., XIX, 1846, 508, Bahia; San Francisco; Amazon; Maracaibo.
Erythrinus trahira Agassiz, in Spix, Pisc. Brasil., 1829, pl. 18, Bahia; San Francisco; Amazon; Maracaibo.
Erythrinus macrodon Agassiz, loc. cit., 43, pl. 18, Alma, Prov. Bahia, San Francisco.
Erythrinus macrocephalus Agassiz, loc. cit., 44, San Francisco.
Erythrinus brasiliensis Agassiz, loc. cit., 45, pl. 20, Peruaguacu.
Macrodon auritus Cuvier and Valenciennes, Hist. Nat. Poiss., XIX, 1846, 519, Montevideo.
Macrodon teres Cuvier and Valenciennes, loc. cit., 521, Lake Maracaibo.
Macrodon patana Cuvier and Valenciennes, loc. cit., 522, Cayenne.
Macrodon amara Cuvier and Valenciennes, loc. cit., 586, Cayenne.
Macrodon ferox Gill, Ann. Lyc. Nat. Hist. N. Y., VI, 1853, 51, Trinidad.
697. *Hoplias microlepis* (Günther).
Panama to Ecuador.
Macrodon microlepis Günther, Cat., V, 1864, 282, western Ecuador, Guatemala.

Family 84. **GASTEROPELICIDÆ**

- Genus 262. **GASTEROPELECUS** Gronow.
Gasteropelecus Gronow, Mus. Ichth., II, 1763, 7 (type given in Gen. Fish. as *Clupea sternica* L.).
698. *Gasteropelecus maculatus* Steindachner. *Peche-peche*.
Rio Mamoni, near Panama.
Gasteropelecus maculatus Steindachner, Flussfische Südamerikas, 1879, 168, Rio Mamoni, at Chepo, Panama.

699. *Gasteropelecus sternicla* Pallas.

Surinam; Brazil; Essequibo.

Gasteropelecus sternicla Pallas, Spic. Zool., 1780, fasc. 8, p. 50, tab. 3, fig. 4.**Family 85. XIPHOSTOMIDÆ****Genus 263. CTENOLUCIUS Gill.***Ctenolucius* Gill, Suppl., Proc. Acad. Nat. Sci. Phila., XIII, '1861, 8 (*Luciocharax insculptus* Steindachner).*Luciocharax* Steindachner, Denkschr. Akad. Wiss. Wien, XXXIX, 1878 (1879), 67 (*L. insculptus* Steindachner).**700. *Ctenolucius insculptus* (Steindachner).**

Rio Magdalena and Rio Momoni near Panama.

Luciocharax insculptus Steindachner, Denkschr. Akad. Wiss. Wien, XXXIV, 1878 (1879), 67 Rio Magdalena, and Rio Mamoni near Panama.**701. *Ctenolucius beani* (Fowler).**

Pacific coast of Panama; both slopes of Colombia.

Beloncharax beani Fowler, Proc. Acad. Nat. Sci. Phila., LVIII, 1906, 464, Rio Truando, a tributary of Rio Atrato, Panama.*Luciocharax striatus* Boulenger, Ann. Mag. Nat. Hist., ser. 8, VII, 1911, 312, Boca de Calmia, Choco.**Family 86. ANOSTOMIDÆ. (Curimatidæ)****Genus 264-265. CURIMATA Walbaum.***Curimata* Walbaum, Artdi Pisc., 1792, 80 (*Salmo marcgravi* Walbaum, based on *Charax maxilla superiore longiore* Gronow, which is *Salmo cyprinoides* Linnaeus).*Les Curimates* Cuvier, Règne Anim., ed. 1, II, 1817, 165 (*Salmo edentulus* Bloch).*Curimatus* of authors generally; altered spelling.*Curimatella* Eigenmann and Eigenmann, Ann. N. Y. Acad. Sci., IV, 1889, 415 (*C. lepidurus* Eigenmann and Eigenmann).*Semitapicus* Eigenmann and Eigenmann, loc. cit., 415 (*Curimatus spilurus* Günther).**701a. *Curimata magdalensæ* Steindachner. *Sardina blanca*.**

Rio Magdalena and Rio Mamoni, Colombia.

Curimatus magdalensæ Steindachner, Denkschr. Akad. Wiss. Wien, XXXIX, 1878 (1879), 34, Rio Magdalena, Colombia.**Family 87. HEMIODONTIDÆ****Genus 266. CHARACIDIUM Reinhardt.***Characidium* Reinhardt, Overs. Dansk. Forh. Kjøbenhavn, 1866, 56, (*C. fasciatum* Reinhardt).**702. *Characidium marshi* Breder.**

Tuyra Basin, Pacific slope of Panama.

Characidium marshi Breder (C. M.), Amer. Mus. Novitates, CLXXX, July 5, 1925, 5, fig. 5, Rio Sucubti, Darien, Panama.**Genus 267. APAREIODON Eigenmann.***Apareiodon* Eigenmann, Ann. Carnegie Mus., X, 1916, 71 (*Parodon piracicabæ* Eigenmann).**703. *Apareiodon compressus* Breder.**

Tuyra Basin, Pacific slope of Panama.

Apareiodon compressus C. M. Breder, jr., Amer. Mus. Novitates, CLXXX, July 5, 1925, 4, fig. 3, 4, Rio Chucunaque, Panama.**704. *Apareiodon dariensis* (Meek and Hildebrand).**

Rio Cupe, Panama.

Parodon dariensis Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X, 1913, 83, Pl. XVII, 1916, Rio Cupe, Pacific slope of Panama.

Order W. GYMNONOTI

Family 88. GYMNOTIDÆ

Genus 268. GYMNOTUS Linnæus.

Gymnotus Linnæus, Syst. Nat., Ed. X, 1758, 246 (*G. carapo* L.).

Carapus Rafinesque, Indice, 37, 1810, 57 (*Gymnotus acus* Linnæus, prior to *Pterasfer* Cuvier, not *Carapus* Cuvier=*Giton* Kaup).

Carapus Müller and Troschel, Horæ Zool., III, 1849, 13 (*Gymnotus fasciatus* Pallas=*Gymnotus carapo* L.).

705. *Gymnotus carapo* Linnæus.

Carapo Marcgrave, Hist. Pisc. Brasil., 1648, 170, Brazil.

Gymnotus carapo Linnæus, Syst. Nat., Ed. X, 1758, 246.

Gymnotus fasciatus Pallas, Spic. Zool., VII, 1769, 35, fresh waters of America; anal rays about 180.

Gymnotus albus Pallas, loc. cit., 36, Surinam.

Gymnotus putao Lacépède, Hist. Nat. Poiss., II, 1801, 176, Brazil.

Genus 269. APTERONOTUS Lacépède.

Apteronotus Lacépède, Hist. Nat. Poiss., II, 1800, 208 (*A. passan* Lacépède=*Gymnotus albifrons* L.).

Sternarchus Schneider, Syst. Ichth., Bloch, 1801, 497 (*Gymnotus albifrons* L.).

Memarchus Kaup in Duméril, Ichth. Anal., 1856, 201 (*Gymnotus albifrons* L.).

706. *Apteronotus rostratus* (Meek and Hildebrand).

Streams of Panama, in Atlantic drainage, and of Colombia (Rio Cauca).

Sternarchus rostratus Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X, 1913, 85, Rio Grande near Cana, Panama.

Genus 270. STERNOPYGUS Müller and Troschel.

Sternopygus Müller and Troschel, Horæ Zool., III, 1849, 13 (*Gymnotus macrurus* Bloch and Schneider).

Carapus Cuvier, Règne Anim., Ed. I, 1817, 237 (*Gymnotus macrourus* Bloch and Schneider); not *Carapus* Rafinesque, 1810.

Carapo Oken, Isis, 1817, 1183; after Cuvier.

Giton Kaup, in Duméril, Ichth. Anal., 1856, 201 (*Gymnotus fasciatus* Pallas).

707. *Sternopygus dariensis* Meek and Hildebrand.

Streams of Panama, Atlantic slope.

Sternopygus dariensis Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X, 1916, 309, Rio Tuyra at Marrigante.

Genus 271. HYPOPOMUS Gill.

Hypopomus Gill, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 152 (*Rhamphichthys mulleri* Kaup).

Brachyrhamphichthys Günther, Cat., VIII, 1890, 6 (*Rhamphichthys artedi* Kaup).

708. *Hypopomus brevirostris* (Steindachner).

Panama, on both slopes to Brazil and Rio de la Plata.

Rhamphichthys brevirostris Steindachner, Sitzungs., Akad. Wiss. Wien, LVIII, 1868, 254, fig. 2, Garapore, Amazon, at Santarem.

Hypopomus occidentalis Regan, Ann. Mag. Nat. Hist., XIV, 1914, (8), 32, Condoto River, Colombia.

Genus 272. EIGENMANNIA Jordan and Evermann.

Cryptops Eigenmann, Ann. N. Y. Acad. Sci., VII, 1894, 626 (*Sternopygus humboldti* Steindachner); name preoccupied.

Eigenmannia Jordan and Evermann, Fish. North and Mid. Amer., 1896, 341 (*Sternopygus humboldti* Steindachner=*Sternarchus virescens* Valenciennes).

709. *Eigenmannia virescens* (Valenciennes).

Brazil, north in Atlantic drainage to Panama.

Sternarchus virescens Valenciennes, D'Orbigny Voyage, V, 1847, 11.

Sternopygus lineatus Müller and Troschel, Schomburgk's Reise, III, 1848, 640, British Guiana.

Sternopygus tumifrons Müller and Troschel, Horæ Zool., III, 1849, 14.

Sternopygus humboldti Steindachner, Denkschr. Akad. Wiss. Wien, 1878, 55, Rio Magdalena.

Order X. EVENTOGNATHI. Carps

Family 89. CATOSTOMIDÆ. Suckers and buffalofishes

Genus 273. CYCLEPTUS Rafinesque. *Blackhorse*.

Cycleptus Rafinesque, Jour. Phys., LXXXVIII, 1819, 421 (*C. nigrescens* Rafinesque = *Catostomus elongatus* LeSueur).

Rhytidostomus Heckel, Fisch. Syriens, in Russegger's Reisen, 1842, 1023 (*Catostomus elongatus* LeSueur).

710. *Cycleptus elongatus* (LeSueur). *Blackhorse*; *Gourdseed sucker*; *Missouri sucker*; *Suckerel*.

Mississippi valley; rather common in large streams.

Catostomus elongatus LeSueur, Jour. Acad. Nat. Sci. Phila., I, 1817, 103, Ohio River.

Cycleptus nigrescens Rafinesque, Jour. Phys., LXXXVIII, 1819, 421, Ohio River.

Genus 274. MEGASTOMATOBUS Fowler. *Big-mouthed buffalofish*.

Megastomatobus Fowler, Proc., Acad. Nat. Sci. Phila., LXV, 1913, 45 (*Sclerognathus cyprinella* Cuvier and Valenciennes, the chief de filo of these authors for *Sclerognathus* being *Sclerognathus cyprinus*).

Ichthyobus Agassiz, Amer. Jour. Sci. Arts, 1855, 192 (*I. bubalus* Agassiz; not *Catostomus bubalus* Rafinesque; revised spelling of *Ictiobus*).

711. *Megastomatobus cyprinella* (Cuvier and Valenciennes). *Redmouth buffalofish*; *Common buffalofish*; *Bigmouth buffalo*; *Gourdseed buffalo*.
Mississippi Valley to Red River of the North; generally abundant in larger streams.

Sclerognathus cyprinella Cuvier and Valenciennes, Hist. Nat. Poiss., XVII, 1844, 355 (477), Lake Pontchartrain, La.

Genus 275. ICTIOBUS Rafinesque. *Buffalofishes*.

Ictiobus Rafinesque, Ichth. Ohiensis, 1820, 55 (*Ambiodon bubalus* Rafinesque).

Bubalichthys Agassiz, Amer. Jour. Sci. Arts, XVIII, 1855, 192 (*Carpoides urus* Agassiz).

Subgenus BUBALICHTHYS Agassiz.

712. *Ictiobus urus* (Agassiz). *Mongrel buffalo*; *Round buffalo*; *Black buffalo*, *Chopper*.

Mississippi Valley; less common than the others in the large streams; the largest and least common of the buffalo fish.

?*Carpoides niger* Rafinesque, Ichth. Ohiensis, 1820, 56, Ohio River; may be *M. cyprinella*.

Carpoides urus Agassiz, Amer. Jour. Sci. Arts, XVII, 1854, 355, Tennessee River, Ala.

Bubalichthys urus Agassiz, loc. cit., Ohio River.

?*Bubalichthys niger* Agassiz, loc. cit., 193, Ohio River.

?*Bubalichthys bonasus* Agassiz, loc. cit., 195, Osage River, Mo.

Subgenus ICTIOBUS Rafinesque.

713. *Ictiobus bubalus* (Rafinesque). *Smallmouth buffalo*; *Razor-backed buffalo*; *Suckermouth buffalo*; *Quillback buffalo*; *Brown buffalo*; *Rooter*.
Mississippi Valley and southward; generally abundant.

?*Ambiodon bubalus* Rafinesque, Jour. Phys., LXXXVIII, 1819, 421, Ohio River.

?*Carpoides taurus* Agassiz, Amer. Jour. Sci. Arts, XVII, 1854, 355, Mobile River.

?*Carpoides vitulus* Agassiz, loc. cit., 356, Wabash River at New Harmony.

Ichthyobus rauchi Agassiz, loc. cit., XIX, 1855, 192.

Ichthyobus cyanellus Nelson, Bull., Ill. Lab. Nat. Hist., I, 1876, 49, Illinois River.

Bubalichthys altus Nelson, in Jordan, Proc. Acad. Nat. Sci. Phila., XXIX, 1877, 73, Cairo, Ill.

Bubalichthys bubalinus Jordan, Bull. U. S. Nat. Mus., IX, 1877, 50, Ohio River.

- Genus 276. CARPIODES Rafinesque.** *Carp suckers.*
Carpiodes Rafinesque, Ichth. Ohiensis, 1820, 56 (*Catostomus cyprinus* LeSueur).
Sclerognathus Cuvier and Valenciennes, Hist. Nat. Poiss., XVII, 1844, 472 (*Catostomus cyprinus* and *Sclerognathus cyprinella* Cuvier and Valenciennes; restricted to the former by Agassiz, 1854, to the latter by Gunther, 1868).
- 714. *Carpiodes cyprinus* (LeSueur).** *Carp sucker; American carp; Carp; Quillback.*
 Streams about Chesapeake Bay; common in the Chesapeake and Potomac, rare in the Delaware.
Catostomus cyprinus LeSueur, Jour. Acad. Nat. Sci. Phila., I, 1817, 91, Elk River and other tributaries of Chesapeake Bay.
Carpiodes vacca Agassiz, Amer. Jour. Sci. Arts, XVII, 1854, 356, Susquehanna River.
- 715. *Carpiodes carpio* (Rafinesque).** *Carp sucker; Common river carp; Sucker.*
 Ohio Valley and southwest to central Texas; generally abundant and variable.
Catostomus carpio Rafinesque, Ichth. Ohiensis, 1820, 56, falls of the Ohio River.
Carpiodes nummifer Cope, Proc. Amer. Phil. Soc., XI, 1870, 484, Wabash River.
- 716. *Carpiodes cutisanserinus* Cope.**
 Allegheny Basin.
Carpiodes cutisanserinus Cope, Proc., Amer. Phil. Soc. Phila., XI, 1870, 481, Kiskiminitas River, Pennsylvania (Allegheny Basin).
Carpiodes selene Cope, loc. cit., 1870, 41; supposed to be from Root River, Mich.
- 717. *Carpiodes difformis* Cope.** *Blunt-nosed river carp; Sucker.*
 Ohio valley and westward; generally common.
Carpiodes difformis Cope, Proc., Amer. Phil. Soc., XI, 1870, 480, Wabash River.
- 718. *Carpiodes bison* Agassiz.**
 Osage River.
Carpiodes bison Agassiz, Amer. Jour. Sci. Arts, XVII, 1854, 356, Osage River, Mo.
- 719. *Carpiodes thompsoni* Agassiz.** *Lake carp; Drum; Shad* (Sandusky, Ohio).
 Great Lakes region from Lake Champlain to Lake of the Woods, chiefly northward.
Carpiodes thompsoni Agassiz, Amer. Jour. Sci. Arts, XVIII, 1855, 191, Lake Champlain.
- 720. *Carpiodes velifer* (Rafinesque).** *Silver carp; Quillback; Spearfish; Sailfish; Skimback; Sailing sucker; Sailorfish.*
 Mississippi Valley and westward to the upper Missouri; more common northward.
Catostomus velifer Rafinesque, Ichth. Ohiensis, 1820, 56, Ohio.
Carpiodes damalis Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 170, Milk River, Mont.
Carpiodes grayi Cope, Proc., Amer. Phil. Soc., XI, 1870, 482, Western States.
- 721. *Carpiodes tumidus* Baird and Girard.** *Metalote; Buffalo.*
 Lowland streams and lagoons, from the Rio Grande to the Rio Panuco and Tampico
Carpiodes tumidus Baird and Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 28, Rio Grande at Fort Brown, Tex.; perhaps not separable from *C. velifer*.
- 722. *Carpiodes labiosus* Meek.**
 Streams of eastern Mexico.
Carpiodes labiosus Meek, Field Col. Mus., Zool., V, 1904, 29, fig. 6, Valles, San Luis Potosi, Mexico.

- 723. *Carpiodes elongatus* Meek.**
Streams of the east coast of Mexico.
Carpiodes elongatus Meek, Field Col. Mus., Zool., V, 1904, 28, fig. 5,
Rio San Juan, Rio Conchos, and Rio Sarto Maruta in Tamaulipas,
Linares, Nueva Leon.
- 724. *Carpiodes microstomus* Meek.**
Tributaries of the Rio Grande, on the Mexican plateau.
Carpiodes microstomus Meek, Field Col. Mus., Zool., V, 1904, 27, fig.
4, Rio Conchos in Chihuahua.
- 725. *Carpiodes meridionalis* (Günther).**
Southern Mexico and Guatemala.
Sclerognathus meridionalis Günther, Cat., VII, 1868, 23, Rio Usuma-
cinta, Guatemala.
- Genus 277. NOTOLEPIDOMYZON Fowler.**
Notolepidomyzon Fowler, Proc. Acad. Nat. Sci. Phila., LXV, 1913, 47
(*Pantosteus arizonæ* Gilbert=*Catostomus clarki* Baird and Girard).
- 726. *Notolepidomyzon plebeius* (Baird and Girard).**
Basin of the Rio Grande, Colorado to Chihuahua; Rio Piedras, Rio
Casas Grandes; very common.
Catostomus plebeius Baird and Girard, Proc. Acad. Nat. Sci. Phila.,
VII, 1854, 28, Rio Mimbres, a tributary of Lake Guzman, Chihuahua,
Mexico.
Catostomus (Acomus) guzmaniensis Girard, loc. cit., VIII, 1856, 173,
Rio Janos, tributary to Lago de Guzman, Chihuahua, Mexico.
Catostomus nebuliferus Garman, Bull. Mus. Comp. Zool., VIII, 1881,
89, Rio Nazas, Coahuila, Mexico.
- 727. *Notolepidomyzon clarkii* (Baird and Girard).**
Rio Gila, Salt River, and their tributaries in Arizona.
Catostomus clarkii Baird and Girard, Proc. Acad. Nat. Sci. Phila., VII,
1854, 27, Rio Santa Cruz, Gila Basin, Ariz.
Pantosteus arizonæ Gilbert, in Jordan and Evermann, Fishes North
and Mid. Amer., 1896, 170, Salt River, Tempe, Ariz.
- 728. *Notolepidomyzon santæ-anæ* (Snyder).**
Streams of southern California.
Pantosteus santæ-anæ Snyder, Proc. U. S. Nat. Mus., XXXIV, 1908,
33, Santa Ana River, at Riverside, Calif.
- 729. *Notolepidomyzon generosus* (Girard). *Mountain sucker.***
Colorado Basin.
Catostomus (Acomus) generosus Girard, Proc. Acad. Nat. Sci. Phila.,
VIII, 1856, 174, Cottonwood Creek; not in Utah, "no doubt from
Colorado" (Snyder).
- Genus 278. PANTOSTEUS Cope. *Mountain suckers.***
Pantosteus Cope, Wheeler's Surv., V, 1875, 673 (*Minomus platyrhynchus*
Cope).
- 730. *Pantosteus delphinus* (Cope). *Bluehead sucker.***
Mountain streams tributary to the Colorado River in western Colorado
and Wyoming; very abundant.
Minomus delphinus Cope, Hayden's Geol. Surv. Wyo., 1870, 435;
probably Henry Fork of Green River, Wyo.
? *Minomus bardus* Cope, loc. cit., 436; probably Green River, Wyo.
- 731. *Pantosteus platyrhynchus* (Cope).**
Streams of Utah Basin (Provo and Sevier Rivers).
Minomus platyrhynchus Cope, Proc. Am. Phil. Soc., XIV, 1874, 134,
Utah Lake at Provo.
? *Minomus jarrovi* Cope, loc. cit., 135; "near Provo"; the type lost.
- 732. *Pantosteus jordani* Evermann.**
Upper Missouri and Columbia River Basins.
Pantosteus jordani Evermann, Bull. U. S. Fish Com., XII, 1892 (Jan.
27, 1893), 51, fig. on p. 53; Whitewood Creek and other streams of
the Black Hills, S. Dak.

- 733. *Pantosteus columbianus* Eigenmann.**
Columbia Basin.
Pantosteus columbianus Eigenmann, Amer. Nat., Feb. 4, 1893, 151,
Columbia River; perhaps identical with *Pantosteus jordani*.
- 734. *Pantosteus virescens* Cope.**
Tributaries of Lake Bonneville basin of Utah; abundant in Weber and
Bear Rivers; largest of the hard-mouthed or mountain suckers.
Pantosteus virescens Cope, Wheeler's Surv., Zool., 1875, 675; by error
ascribed to Arkansas River at Pueblo; must have come from the
basin of Utah.
- 735. *Pantosteus lahontan* Rutter.**
Streams of western Nevada; Lahontan Basin.
Pantosteus lahontan Rutter, Bull. U. S. Fish Com., XXII, 1902, 146,
with figure; Susan River, a tributary of Honey Lake, Little Truckee
River, Prosser Creek; misprint for *lahontan*.
- Genus 279. CATOSTOMUS LeSueur. Fine-scaled sucker.**
Catostomus LeSueur, Jour. Acad. Nat. Sci. Phila., I, 1817, 89 (*Cyprinus
catostomus* Forster).
Decactylus Rafinesque, Ichth. Ohiensis, 1820, 60 (*Catostomus bostoniensis*
Rafinesque = *Cyprinus commersoni* Lacépède).
Stomocatus Bonaparte, Fauna Italica, 1840, Fasc. 129 (*Cyprinus catosto-
mus* Forster).
Minomus Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 173 (*Catos-
tomus insignis* Baird and Girard).
Acomus Girard, loc. cit., 173 (*Catostomus forsterianus* Richardson =
Cyprinus catostomus Forster).
- Subgenus DECACTYLUS Rafinesque.**
- 736. *Catostomus commersonii* (Lacépède).** *Common sucker; White sucker;
Brook sucker; Fine-scaled sucker, Black mullet (Sandusky, Ohio); Fine-
scaled mullet; Bay mare.*
Quebec and the Great Lakes to Montana, Colorado, southward to
Missouri and Georgia; the commonest of the suckers, excessively
abundant from Massachusetts west to Kansas
Cyprinus commersonii Lacépède, Hist. Nat. Poiss., V, 1803, 503, locality
unknown; wrongly accredited to Commerson, the description and
figure drawn from an old example long in alcohol
Cyprinus teres Mitchell, Trans. Lit. Phil. Soc. N. Y., 1815, 458, New
York.
Catostomus communis LeSueur, Jour. Acad. Nat. Sci. Phila., I, 1817,
95, 106, Delaware River.
Catostomus bostoniensis LeSueur, loc. cit., 106, Boston.
Catostomus flexuosus Rafinesque, Ichth. Ohiensis, 1820, 59, Ohio River.
Catostomus reticulatus Richardson, Fauna Bor.-Amer., Fishes, 1836,
303, Albany River.
Catostomus gracilis Kirtland, Rept. Zool. Ohio, 1838, 169, Cleveland,
Ohio
Catostomus pallidus DeKay, New York Fauna: Fishes, 1842, 200, New
York.
Catostomus sucklii Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 175,
Milk River, Mont.
Catostomus chloropteron Abbott, loc. cit., XII, 1860, 473, Kansas.
? *Catostomus alticola* Cope, Proc. Amer. Phil. Soc., XIV, 1874, 138,
Twin Lake, Colo.
Moxostoma trisignatum Cope, Wheeler's Surv., V, Zool., 1875, 679,
Arkansas River.
? *Catostomus utawana* Mather, Twelfth Rept., N. Y. Fish Com., Surv.
of Adirondacks, 1884, 36, Blue Mountain Lakes, N. Y.; dwarf form.
- 737. *Catostomus ardens* Jordan and Gilbert.** *Mullet of Utah Lake.*
Great basin of Utah and upper Snake River; Idaho; locally abundant.
Catostomus ardens Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880,
464, Utah Lake, Provo, Utah.

738. *Catostomus occidentalis* Ayres. *Sacramento sucker*.
Streams of northern and central California and southern Oregon.
Catostomus occidentalis Ayres, Proc. Calif. Acad. Nat. Sci., I, 1854, 18, San Francisco.
Catostomus labiatus Ayres, loc. cit., 1855, 32, San Joaquin River, Stockton, Calif.
Catostomus aræopus Jordan, Bull. U. S. Nat. Mus., XII, 1878, 173, South Fork of Kern River, Calif.
739. *Catostomus tsilcoosensis* Evermann and Meek.
Coastal streams of Oregon.
Catostomus tsilcoosensis Evermann and Meek, Bull. U. S. Fish Com., XVII, 1897, 66, fig. 1, Tsilcoos Lake, Lane Co., Oreg.
740. *Catostomus snyderi* Gilbert.
Klamath Basin, California and Oregon.
Catostomus snyderi Gilbert, Bull. U. S. Fish Com., XVII, 1897 (Jan. 6, 1898), 3, Upper Klamath Lake, Oreg.
741. *Catostomus microps* Rutter.
Streams of the lava beds of California.
Catostomus microps Rutter, Bull. U. S. Bur. Fish., XXVII, 1907 (1908), 120, fig. 1; Rush Creek, a tributary of Ash Creek, Aden, Modoc Co., Calif.
742. *Catostomus macrocheilus* Girard. *Columbia River sucker*; *Bighorn sucker*.
Columbia River Basin, as far up as Flathead Lake, Montana; Upper Salmon Falls and the headwaters of Salmon River, Idaho.
Catostomus macrocheilus Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 175, Astoria, Oreg.
743. *Catostomus insignis* Baird and Girard.
Gila Basin, Ariz.
Catostomus insignis Baird and Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 28, Rio San Pedro, Ariz.
Catostomus gila Kirsch, Proc. U. S. Nat. Mus., XI, 1888, 555, Rio Gila, Fort Thomas, Ariz.
744. *Catostomus bernardini* Girard.
San Bernardino Creek, a tributary of Rio Yaqui, on the boundary of Arizona and Sonora.
Catostomus bernardini Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 175, San Bernardino Creek, Ariz.
745. *Catostomus sonoriensis* Meek.
Rivers of Sonora on the Pacific slope.
Catostomus sonoriensis Meek, Field Col. Mus., Zool., Ser. III, No. 6, May, 1902, 75, Pl. XVI, Rio Paphigochic, Miñaca, Chihuahua, Mexico.
- Subgenus CATOSTOMUS LeSueur.
746. *Catostomus catostomus* (Forster). *Long-nosed sucker*; *Northern sucker*; *Red sucker*; *Black sucker* (Sandusky, Ohio); *Sturgeon sucker*.
Great Lakes; upper Missouri River; Ohio Basin; West Virginia; upper Columbia; eastward to Maine and northwestward to Alaska; very abundant northward.
Cyprinus catostomus Forster, Philos. Trans., LXIII, 1773, 155, tab. 6, streams about Hudson Bay.
Catostomus longirostrum and *hudsonius* LeSueur, Jour. Acad. Nat. Sci. Phila., I, 1817, 102, 107, Vermont; after Forster.
Catostomus forsterianus Richardson, Franklin's Jour., 1823, 720, Lake Huron; Great Slave Lake.
Catostomus aurora Agassiz, Lake Superior, 1850, 360, Lake Superior.
Catostomus nanomyzon Mather, Twelfth Rep., N. Y. Fish Com., Surv. of Adirondacks, 1884, 36, Big Moose Lake, northern New York; dwarf form.
747. *Catostomus richardsoni* Harper and Nichols. *Gray sucker*.
Streams of northwestern Canada.
Catostomus richardsoni Harper and Nichols, Bull. Amer. Mus. Nat. Hist., XLI, 1919, 263, Pl. XV, fig. 1, type locality not designated.

- 748. *Catostomus griseus* Girard.**
 Platte River and upper Missouri region.
Catostomus (Acomus) griseus Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 174, Sweetwater Fork of Platte River.
 ?*Catostomus (Acomus) lactarius* Girard, loc. cit., 174, Milk River, Mont.
- 749. *Catostomus retropinnis* Jordan.**
 Northern Montana.
Catostomus retropinnis Jordan, Bull. U. S. Nat. Mus., XII, 1878, 178, Milk River, Mont.
- 750. *Catostomus pocatello* Gilbert and Evermann. *Moo-gad-ee of the Fort Hall Indians.***
 Upper Snake River.
Catostomus pocatello Gilbert and Evermann, Bull., U. S. Fish Com., XIV, 1894, 189, pl. 21, fig. 1, Ross fork of Snake River, near Pocatello, Idaho.
- 751. *Catostomus tahoensis* Gill and Jordan. *Tahoe sucker.***
 Lake Tahoe and Humboldt River, Nev.
Catostomus tahoensis Gill and Jordan, in Jordan, Bull., U. S. Nat. Mus., XII, 1878, 173, Lake Tahoe, Calif.
- 752. *Catostomus discobolus* Cope.**
 Upper Colorado Basin.
Catostomus discobolus Cope, Hayden's Geol. Surv. Wyo., 1870 (1872), 435, Green River, Wyo.
- 753. *Catostomus chamberlaini* (Rutter).**
Chasmistes chamberlaini Rutter, Bull. U. S. Fish Com., XXII, 1902 (1904), 147, Eagle Lake (a lake without outlet in the Lahontan Basin); apparently a variant of *C. tahoensis*.
- 754. *Catostomus latipinnis* Baird and Girard. *Flannel-mouthed sucker.***
 Rio Colorado and Rio Gila and their tributaries.
Catostomus latipinnis Baird and Girard, Proc. Acad. Nat. Sci. Phila., VI, 1853, 388, Rio San Pedro, Gila Basin, Ariz.
- 755. *Catostomus conchos* Meek.**
Catostomus conchos Meek, Field Col. Mus., Zool., III, 1902, 75, Rio Conchos, Jimenez, Chihuahua, Mexico.
- Genus 280. *HYPENTELIUM* Rafinesque.**
Hypentelium Rafinesque, Jour. Acad. Nat. Sci. Phila., II, 1818, 421
 (*H. macroplectum* Rafinesque = *Catostomus nigricans* LeSueur).
Eurystomus Rafinesque, Ichth. Ohiensis, 1820, 59 (*Catostomus megastomus* Rafinesque), based on an incorrect drawing of *Hypentelium nigricans*.
Hylomyzon Agassiz, Amer. Jour. Sci. Arts, 1855, 205 (*Catostomus nigricans* LeSueur).
- 756. *Hypentelium nigricans* (LeSueur). *Black sucker; Mud sucker; Hog sucker; Stoneroller; Toter; Crawl-a-bottom; Hammerhead; Stonelugger; Hogmolly; Booleg sucker; Spotted sucker; Niggerhead.***
 New York to Minnesota, Kansas, Arkansas, and the Carolinas; abundant in swift or rocky streams.
Catostomus nigricans LeSueur, Jour. Acad. Nat. Sci. Phila., I, 1817, 102, Lake Erie.
Catostomus maculosus LeSueur, loc. cit., 103, Pipe Creek, Md.
Hypentelium macropterus Rafinesque, loc. cit., I, 1817, 420, Ohio River.
Catostomus xanthopus Rafinesque, Ichth. Ohiensis, 1820, 57, Ohio River.
Catostomus nigricans etowanus Jordan, Ann. Lyc. Nat. Hist. N. Y., XI, 1876 (1877), 345, Etowah River, Rome, Ga.
Catostomus megastomus Rafinesque, Ichth. Ohiensis, 1820, 59; based on incorrect drawing.
Catostomus planiceps Cuvier and Valenciennes, Hist. Nat. Poiss., XVII, 1844, 334 (450), 1844, Wabash River.
- Genus 281. *THOBUERNIA* Jordan and Snyder.**
Thoburnia Jordan and Snyder, Copeia, October 4, 1917, 88 (*Catostomus rhothæcus* Thoburn).

757. *Thoburnia routhœca* (Thoburn).
Headwaters of Tennessee River.
Catostomus routhœcus Thoburn, in Jordan and Evermann, Fishes North and Mid Amer., 1896, 181, upper tributaries of Tennessee River; supposed to be from the French Broad River at Wolf Creek, Tenn.
- Genus 282. CHASMISTES Jordan.
Chasmistes Jordan, Bull., Hayden's Geol. Surv. Terr., IV, No. 2, 1878, 417 (*C. fecundus* Jordan; not *Catostomus fecundus* Cope and Yarrow = *Chasmistes lorus* Jordan).
Lipomyzon Cope, Amer. Nat., XV, 1881, 59 (*Chasmistes brevirostris* Cope).
Pithecomyzon Fowler, Proc. Acad. Nat. Sci. Phila., LXV, 1913, 54 (*Chasmistes cujus* Cope).
- Subgenus LIPOMYZON Cope.
758. *Chasmistes fecundus* (Cope and Yarrow). *Webug sucker*.
Utah Lake.
Catostomus fecundus Cope and Yarrow, Wheeler's Surv., Zool., V, 1875, 678, Utah Lake.
759. *Chasmistes brevirostris* Cope.
Klamath Lake, Oreg.
Chasmistes brevirostris Cope, Amer. Nat., XIII, 1879, 785, Klamath Lake, Oreg.
760. *Chasmistes stomias* Gilbert.
Upper Klamath Lake, Oreg.
Chasmistes stomias Gilbert, Bull., U. S. Fish Com., XVII, 1897 (1898), 5, text figure, Upper Klamath Lake, Oreg.
761. *Chasmistes lorus* Jordan. *June sucker*.
Utah Lake.
Chasmistes lorus Jordan, Bull., U. S. Nat. Mus., XII, 1878, 249, Utah Lake at Provo, Utah.
762. *Chasmistes cujus* Cope. *Cousa*; *Kweewee*; *Quirree*.
Pyramid Lake, Nevada; locally abundant.
Chasmistes cujus Cope, Proc. Acad. Nat. Sci. Phila., XXXV, 1883, 149, Pyramid Lake, Nev.
763. *Chasmistes copei* Evermann and Meek. *Tswam*.
Klamath Lakes, Oreg.
Chasmistes copei Evermann and Meek, Bull., U. S. Fish Com., XVII, 1894 (1898), 70, fig. 3; Pelican Bay, Upper Klamath Lake, Oreg.
- Genus 283. DELTISTES Seale.
Deltistes Seale, Proc. Calif. Acad. Sci., ser. 2, VI, 1896, 269 (*Chasmistes luxatus* Cope).
764. *Deltistes luxatus* (Cope). *Tswam*; *Lost River sucker*.
Klamath Lake and River, Oreg.; abundant.
Chasmistes luxatus Cope, Amer. Nat., XIII, 1879, 784, Klamath Lake, Oreg.
Catostomus rex Eigenmann, loc. cit., XXV, July, 1891, 667, Lost River, Oreg.
- Genus 284. XYRAUCHEN Eigenmann and Kirsch. *Razorback suckers*.
Xyrauchen Eigenmann and Kirsch, Proc. U. S. Nat. Mus., XI, 1888, 556 (*Catostomus cypho* Lockington = *Catostomus texanus* Abbott).
765. *Xyrauchen texanus* (Abbott). *Razorback sucker*; *Humpback sucker*.
Basin of the Colorado and Gila Rivers (not in Texas).
Catostomus texanus Abbott, Proc. Acad. Nat. Sci. Phila., XII, 1860, 473, Colorado and New Rivers, Ariz.
Catostomus cypho Lockington, loc. cit., 1880, 237, Colorado River at mouth of the Gila, Ariz.
Xyrauchen uncomphagre Jordan and Evermann, Bull. U. S. Fish Com., 1889, 26, Uncomphagre River delta, Colo.; young example, probably the same.
- Genus 285. ERIMYZON Jordan. *Chub suckers*.
Erimyzon Jordan, Bull. Buffalo Soc. Nat. Hist., III, 1876, 95 (*Cyprinus oblongus* Mitchill).

- 766. *Erimyzon sucetta* (Lacépède).** *Chub; Chub sucker; Creekfish; Creek sucker.*
Coastwise streams, Pennsylvania and south; very abundant southward.
Cyprinus sucetta Lacépède, Hist. Nat. Poiss., V, 1803, 606, South Carolina.
Moxostoma kennerlyi Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 171, Dry Creek, Victoria, Tex.
Moxostoma campbelli Girard, loc. cit., 172, Live Oak Creek and Devil River, Tex.
Moxostoma tenue Agassiz, Amer. Jour. Sci. Arts, 1855, 203, Mobile, Ala.
Erimyzon goodii Jordan, Bull. U. S. Nat. Mus., XII, 1878, 148, St. Johns River, Fla.
- 767. *Erimyzon oblongus* (Mitchill).** *Chub sucker; Sweet sucker; Mullet; Creek fish; Pin minnow.*
Great Lakes region to Maine and the Dakotas, south to Virginia and Oklahoma; very abundant; replacing the deeper-bodied *sucetta* northward; the two probably intergrading.
Cyprinus oblongus Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 459, New York.
Catostomus gibbosus LeSueur, Connecticut River, Northampton; *tuberculatus*, Germantown, Pa.; and *vittatus*, Wissahickon River, Pa.; Jour. Acad. Nat. Sci. Phila., I, 1817, 92, 93, 104.
Catostomus fasciolaris Rafinesque, Ichth. Ohiensis, 1820, 58, Ohio River.
Labeo elegans, New York; *esopus*, New York; and *elongatus*, Mohawk River; DeKay, N. Y. Fauna: Fishes, 1842, 192, 195, 394.
Moxostoma claviformis Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 171, Coal Creek, Canadian River, Indian Territory [Okla.]
- Genus 286. MINYTREMA** Jordan. *Spotted suckers.*
Mynytrema Jordan, Man. Vert., ed. 2, 1878, 318 (*Catostomus melanops* Rafinesque).
- 768. *Mynytrema melanops* (Rafinesque).** *Spotted sucker; Striped sucker; Winter sucker; Sand sucker; Black winter sucker.*
Great Lakes region to North Carolina and west to Texas and Montana; rather common westward.
Catostomus melanops Rafinesque, Ichth. Ohiensis, 1820, 57, Ohio River.
Catostomus fasciatus LeSueur, in Cuvier and Valenciennes, Hist. Nat. Poiss., XVII, 1844, 333 (449), Mississippi River.
Moxostoma victorix Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 171, Dry Creek, Victoria, Tex.
Ptychostomus haydeni Girard, loc. cit., 172, Yellowstone River; Missouri River at Fort Pierre, Neb.
- Genus 287. MOXOSTOMA** Rafinesque. *Redhorse.*
Moxostoma Rafinesque, Ichth. Ohiensis, 1820, 54 (*Catostomus anisurus* Rafinesque).
Teretulus Rafinesque, loc. cit., 57 (*Catostomus aureolus* LeSueur).
Ptychostomus Agassiz, Amer. Jour. Sci. Arts., XIX, 1855, 203 (*Catostomus aureolus* LeSueur).
Myxostoma Jordan; corrected orthography.
- 769. *Moxostoma papillosum* (Cope).** *White mullet.*
Lowland streams, from the Dismal Swamp in Virginia to the Ocmulgee River, Ga.
Ptychostomus papillosum Cope, Proc. Amer. Phil. Soc. Phila., XI, 1870, 470, Catawba and Yadkin Rivers, N. C.
- 770. *Moxostoma anisurum* (Rafinesque).** *White-nosed sucker.*
Ohio River, Great Lakes region and Lake of the Woods; not very common, but widely distributed.
Catostomus anisurus Rafinesque, Ichth. Ohiensis, 1820, 54, Ohio River.
Catostomus carpio Cuvier and Valenciennes, Hist. Nat. Poiss., XVII, 1844, 457, Lake Ontario, not of Rafinesque.
Ptychostomus velatus Cope, Proc. Amer. Phil. Soc., XI, 1870, 471, Youghiogheny River, Pa.
Moxostoma valenciennesi Jordan, Proc. U. S. Nat. Mus., VIII, 1885, 73; substitute for *Catostomus carpio* Cuvier and Valenciennes; preoccupied.

771. *Moxostoma bucco* (Cope).
Missouri River at St. Joseph.
Ptychostomus bucco Cope, Hayden's Geol. Surv. Wyo., 1870, 437, St. Joseph, Mo.; a doubtful species allied to *M. anisurum*.
772. *Moxostoma pidiense* (Cope).
Great Pedee Basin, the Carolinas.
Ptychostomus pidiensis Cope, Proc. Amer. Phil. Soc. Phila., XI, 1870, 471, Yadkin River, N. C.
773. *Moxostoma collapsum* (Cope).
Lowland streams of North Carolina.
Ptychostomus collapsus Cope, Proc. Amer. Phil. Soc., XI, 1870, 471, Neuse, Yadkin, and Catawba Rivers, N. C.
774. *Moxostoma coregonus* (Cope). *Blue mullet*.
Catawba and Yadkin Rivers, N. C.
Ptychostomus coregonus Cope, Proc. Amer. Phil. Soc. Phila., XI, 1870, 472, Catawba and Yadkin Rivers
775. *Moxostoma album* (Cope).
Rivers of North Carolina.
Ptychostomus albus Cope, Proc., Amer. Phil. Soc. Phila., XI, 1870, 472, Catawba River, N. C.
776. *Moxostoma thalassinum* (Cope).
Yadkin River, N. C.
Ptychostomus thalassinus Cope, Proc. Amer. Phil. Soc. Phila., XI, 1870, 472, Yadkin River, N. C.
777. *Moxostoma congestum* (Baird and Girard). *Texas redhorse*.
Streams of Texas.
Catostomus congestus Baird and Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 27, Rio Salado, Tex.
Ptychostomus albidus Girard, loc. cit., VIII, 1856, 172, Rio San Juan, Monterey, Nuevo Leon, Mexico.
778. *Moxostoma austrinum* (Bean).
Rio de Santiago, Mexico; known from Michoacan, Mexico (west of Sierra Madre); Rio Lerna at Salamanca.
Myxostoma austrina Bean, Proc. U. S. Nat. Mus., II, 1879, 302, Piedad in Morelia, Michoacan, Mexico.
779. *Moxostoma mascotæ* Regan.
Streams of Jalisco (Pacific drainage), Mexico.
Moxostoma mascotæ Regan, Biol. Centrali-Amer., 1907, 147, Tab. XXIV, fig. 2, Rio Mascota, Mexico.
780. *Moxostoma parvidens* Regan.
Rio Grande Basin.
Moxostoma parvidens Regan, Biol. Centrali-Amer., 1907, 147, Tab. XXIV, fig. 3, Rio Grande at Juarez, Mexico.
781. *Moxostoma aureolum* (LeSueur). *Common redhorse; Mullet; White sucker; Large-scaled sucker; Sucker*.
Lake Ontario and Lake Michigan to the Missouri River and Lake of the Woods, south to Arkansas and Georgia; very abundant west of Alleghenies.
Catostomus aureolus LeSueur, Jour., Acad. Nat. Sci. Phila., I, 1817, 95, Lake Erie near Buffalo.
Catostomus duquesnii LeSueur, loc. cit., I, 105, 1817, Ohio River at Pittsburgh, Pa.
Catostomus erythurus Rafinesque, Amer. Month. Mag., III, 1818, 354, 355, Ohio River.
Catostomus oneida DeKay, N. Y. Fauna: Fishes, 1842, 198, Oneida Lake.
Rutilus melanurus Rafinesque, Ichth. Ohiensis, 1820, 51, Ohio River.
Myxostoma euryops Jordan, Ann. Lyc. Nat. Hist. N. Y., XI, 1876, 348, Oostanaula River, Rome, Ga.; probably a monstrosity of this species.

782. *Moxostoma lesueuri* (Richardson). *Picconou*.
Tributaries of Hudson Bay and westward.
Catostomus lesueurii Richardson, Franklin's Jour., 1823, 1772, Pine Island Lake, British America.
783. *Moxostoma macrolepidotum* (LeSueur). *Mullet*; *Red mullet*; *Eastern redhorse*; *River sucker*.
Streams about Chesapeake and Delaware Bays and southward to North Carolina; east of the Alleghenies.
Catostomus macrolepidotus LeSueur, Jour. Acad. Nat. Sci. Phila., I, 1817, 94, Delaware River.
Ptychostomus lachrymans Cope, Proc., Amer. Phil. Soc., XI, 1870, 474, Neuse River at Newbern, N. C.
784. *Moxostoma robustum* (Cope).
Yadkin River, N. C.
Ptychostomus robustus Cope, Proc. Amer. Phil. Soc., XI, 1870, 473, Yadkin River, N. C.
785. *Moxostoma crassilabre* (Cope).
Streams of eastern North Carolina.
Ptychostomus crassilabris Cope, Proc. Amer. Phil. Soc., XI, 1870, 477, Neuse River near Raleigh, N. C.
786. *Moxostoma conus* (Cope).
Neuse and Yadkin Rivers, N. C.
Ptychostomus conus Cope, Proc. Amer. Phil. Soc., XI, 1870, 478, Yadkin River, N. C.
787. *Moxostoma breviceps* (Cope). *Short-headed redhorse*.
Ohio Valley and Great Lakes region; abundant in Lake Erie.
Ptychostomus breviceps Cope, Proc. Amer. Phil. Soc., XI, 1870, 478, Youghiogheny River, Pa.
788. *Moxostoma pæcilurum* (Jordan).
Southern Mississippi to eastern Texas; Pearl, Tangipahoa, and Sabine Rivers.
Myxostoma pæcilura Jordan, Bull. U. S. Nat. Mus., X, 1877, 66, Tangipahoa River, La.
789. *Moxostoma alleghaniensis* Nichols.
Mountain streams of North Carolina.
Moxostoma alleghaniensis Nichols, Bull. Amer. Mus. Nat. Hist., XXX, 1911, 275, Pl. XI, fig. 1, Marshall, N. C.
- Genus 288. SCARTOMYZON Fowler.
Scartomyzon Fowler, Proc. Acad. Nat. Sci. Phila., LXV, 1913, 59 (*Ptychostomus cervinus* Cope).
790. *Scartomyzon rupiscartes* (Jordan and Jenkins). *Jumprocks*.
Rivers of the Carolinas and Georgia, from the Catawba to the Chatahoochee; locally abundant.
Moxostoma rupiscartes Jordan and Jenkins, Proc. U. S. Nat. Mus., XI, 1888, 353, Catawba River at Morgantown, and various other streams, representing *Scartomyzon cervinus* southward
791. *Scartomyzon cervinus* (Cope). *Jumping mullet*; *Crawl-a-bottom*.
Rivers of the South Atlantic States, from the James to the Neuse.
Teretulus cervinus Cope, Jour. Acad. Nat. Sci. Phila., VI, 1868, 236, headwaters of the Roanoke and James Rivers, Va.
- Genus 289. PLACOPHARYNX Cope.
Placopharynx Cope, Proc. Amer. Phil. Soc., XI, 1870, 467 (*P. carinatus* Cope).
792. *Placopharynx carinatus* Cope. *White sucker*; *Big-toothed redhorse*.
Michigan to Tennessee, Georgia, and Arkansas; abundant in large streams, especially in the Ozarks.
Placopharynx carinatus Cope, Proc. Amer. Phil. Soc., XI, 1870, 467, Wabash River.

Genus 290. LAGOCHILA Jordan and Brayton. *Rabbitmouth suckers.*

Lagochila Jordan and Brayton, Proc. Acad. Nat. Sci. Phila., XXIX, 1877, 280, (*L. lacera* Jordan and Brayton); not *Lagocheilus*, an earlier genus of mollusks.

Quassilabra Jordan and Brayton, Man. Vert., Ed. II, 1878, 406 (*Lagochila lacera* Jordan and Brayton); substitute for *Lagochila*, regarded as preoccupied.

793. Lagochila lacera Jordan and Brayton. *Harelip sucker; Cut-lips; Split-mouth sucker; May sucker; Rabbitmouth sucker; Pealip sucker.*

Mississippi Valley; Ozark Mountains; Scioto, Tippecanoe, Clinch, Cumberland, and Chickamauga Rivers, and the White River of Arkansas; nowhere very common.

Lagochila lacera Jordan and Brayton, Proc. Acad. Nat. Sci. Phila., XXIX, 1877, 280, Chickamauga River, Ringgold, Ga.

Family 90. CYPRINIDÆ. Daces and minnows

In arranging the genera of this by far the largest natural family of fishes, we have begun the series with the forms having closest affinity with Asiatic and then with European types—these having largely five teeth in the main row on the pharyngeals. Later follow the characteristically American forms, more or less degenerate as compared with the possible European ancestors, the series closing with aberrant forms from the same stock.

Genus 291. ORTHODON Girard.

Orthodon Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 182 (*Gila microlepidota* Ayres).

794. Orthodon microlepidotus (Ayres). *Blackfish.*

Larger rivers and lakes of central and northern California; generally abundant.

Gila microlepidota Ayres, Proc. Calif. Acad. Nat. Sci., I, 1854, 21, Sacramento and San Joaquin Rivers, Calif.

Genus 292. ACROCHEILUS Agassiz. *Chiselmouths.*

Acrocheilus Agassiz, Amer. Jour. Sci. Arts, XIX, 1855, 96 (*A. alutaceus* Agassiz and Pickering).

795. Acrocheilus alutaceus Agassiz and Pickering. *Chiselmouth; Square-mouth; Hardmouth.*

Lakes and rivers of southeastern Oregon; lower Columbia and tributaries as far up as Spokane and Shoshone Falls.

Acrocheilus alutaceus Agassiz and Pickering, Amer. Jour. Sci. Arts, XIX, 1855, 99, Willamette Falls and Walla Walla River, Oreg.

Genus 293. MYLOCHEILUS Agassiz.

Mylocheilus Agassiz, Amer. Jour. Sci. Arts, XIX, 1855, 229 (*M. lateralis* Agassiz and Pickering).

796. Mylocheilus lateralis Agassiz and Pickering. *Columbia River chub.*

Columbia and Frazer River Basins; ascending to Flathead Lake and Shoshone Falls.

Mylocheilus lateralis Agassiz and Pickering, Amer. Jour. Sci. Arts, 1855, 231, Columbia River at Fort Vancouver; confused by recent writers with *Leuciscus caurinus* Richardson, which is a near relative of *Richardsonius balteatus*.

797. Mylocheilus fraterculus Girard.

Mylocheilus fraterculus Girard, Proc., Acad. Nat. Sci. Phila., VIII, 1856, 169, "Monterey, Calif.," a doubtful record, as no *Mylocheilus* has been yet found in California; scales about 85; 77 in *Mylocheilus lateralis*.

Genus 294. MYLOPHARODON Ayres.

Mylopharodon Ayres, Proc. Calif. Acad. Nat. Sci., I, 1855, 33 (*M. robustus* Ayres=*Mylopharodon canocephalus* Girard).

798. *Mylopharodon conocephalus* (Baird and Girard). *Kaweah chub*.
Sacramento and San Joaquin Rivers, Calif.; southeastern Oregon, Pit River and Big Valley.
Gila conocephala Baird and Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 135, San Joaquin River, Calif.
Mylopharodon robustus Ayres, Proc. Calif. Acad. Nat. Sci., I, 1855, 33, San Joaquin River, Calif.
- Genus 295. **STYPODON** Garman.
Stypodon Garman, Bull. Mus. Comp. Zool., VIII, 1881, 90 (*S. signifer* Garman).
799. *Stypodon signifer* Garman.
Lago de Parras, an isolated lagoon in Coahuila, Mexico.
Stypodon signifer Garman, Bull. Mus. Comp. Zool., VIII, 1881, 90, Lago de Parras, Coahuila, Mexico.
- Genus 296. **CHROSOMUS** Rafinesque.
Chrosomus Rafinesque, Ichth. Ohiensis, 1820, 47 (*Luxilus erythrogaster* Rafinesque).
800. *Chrosomus erythrogaster* Rafinesque. *Red-bellied dace*.
New Brunswick to Ohio, Wisconsin, Colorado, and northern Alabama; St. Lawrence River; chiefly or entirely west of the Alleghenies, very abundant northward.
Luxilus or *Chrosomus erythrogaster* Rafinesque, Ichth. Ohiensis, 1820, 47, Ohio River.
Chrosomus pyrrhogaster Jordan, Man. Vert., Ed. I, 1876, 284, White River, Ind.
801. *Chrosomus eos* Cope.
Streams east of the Alleghenies, north to the Susquehanna; scarce.
Chrosomus eos Cope, Proc., Acad. Nat. Sci. Phila., XIII, 1861, 523, Meshoppen Creek, Susquehanna River, Pa.; perhaps a variation of *Chrosomus erythrogaster*.
802. *Chrosomus oreas* Cope.
Headwaters of Roanoke River, and clear tributaries of the Tennessee River.
Chrosomus oreas Cope, Jour. Acad. Nat. Sci. Phila., VI, 1868, 233, head of Roanoke River, Montgomery County, Va.
803. *Chrosomus dakotensis* Evermann and Cox.
Chrosomus dakotensis Evermann and Cox, Rept. U. S. Fish Com., XIX, 1895, Crow Creek, Chamberlain, S. Dak.
- Genus 297. **LAVINIA** Girard.
Lavinia Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 137 (*L. exilicauda* Baird and Girard).
Luxilinus Jordan, Cat. Fishes N. Amer., 1885, 33 (*Laucosomus occidentalis* Baird and Girard); young.
804. *Lavinia exilicauda* Baird and Girard. *Hitch; Chigh*.
Streams of the coast ranges about San Francisco and Monterey; locally common as far north as Clear Lake, Calif.
Lavinia exilicauda Baird and Girard, Proc., Acad. Nat. Sci. Phila., VII, 1854, 137, Sacramento River, Calif.
Leucosomus occidentalis Baird and Girard, loc. cit., VII, 1854, 137, Poso Creek; Four Creeks, Calif.; young of *L. exilicauda*.
Lavinia harengus Girard, loc. cit., VIII, 1856, 184, Monterey, Calif.
- Genus 298. **OXYGENEUM** Forbes.
Oxygeneum Forbes, Bull. Ill. Lab. Nat. Hist., II, 1885, 136 (*O. pulverulentum* Forbes).
805. *Oxygeneum pulverulentum* Forbes.
Illinois River, Ill.
Oxygeneum pulverulentum Forbes, Bull. Ill. Lab. Nat. Hist., II, 1885, 136, Illinois River, Ill.
- Genus 299. **PTYCHOCEILUS** Agassiz. *Squawfish*.
Ptychocheilus Agassiz, Amer. Jour. Sci. Arts, XIX, 1855, 227 (*P. gracilis* Agassiz=*Cyprinilus* (*Leuciscus*) *oregonensis* Richardson).

806. *Ptychocheilus oregonensis* (Richardson). *Squawfish*; *Chappaul*; *Whitefish*.
Rivers of Oregon and Washington, in the Columbia Basin to Montana and Idaho, and northward to British Columbia.
Cyprinus (Leuciscus) oregonensis Richardson, Fauna Bor.-Amer., III, 1836, 305, Columbia River.
Ptychocheilus gracilis Agassiz, Amer. Jour. Sci. Arts, XIX, 1855, 229, Willamette River.
807. *Ptychocheilus grandis* (Ayres). *Sacramento pike*; *Sacramento squawfish*.
Rivers of California and southeastern Oregon; Pit River.
Gila grandis Ayres, Proc. Calif. Acad. Nat. Sci., I, 1854, 18, San Francisco.
Ptychocheilus major Agassiz, Amer. Jour. Sci. Arts, XIX, 1855, 229, San Francisco.
Ptychocheilus harfordi Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 72, Sacramento River; scales 90 to 95, a variant with smaller scales.
808. *Ptychocheilus lucius* Girard. *White salmon of the Colorado*; *Colorado River squawfish*.
Colorado River Basin, in all larger streams from Rio Uncompahgre to the Gulf of California; largest of American *Cyprinidæ*, reaching 80 pounds.
Ptychocheilus lucius Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 209, Rio Colorado
809. *Ptychocheilus umpquæ* Snyder.
Coastal streams of Oregon.
Ptychocheilus umpquæ Snyder, Bull. U. S. Bur. Fish., XXVII, 1907 (1908), 170, fig. 2, in part, Callopoia Creek, Oakland, Ore.
- Genus 300. *GILA* Baird and Girard.
Gila Baird and Girard, Proc. Acad. Nat. Sci. Phila., VI, 1853, 368 (*G. robusta* Baird and Girard).
810. *Gila elegans* Baird and Girard. *Bony-tail*; *Gila trout*; *Verde trout*.
Colorado and Gila Rivers; abundant in river channels.
Gila elegans Baird and Girard, Proc. Acad. Nat. Sci. Phila., VI, 1853, 369, Zuñi, Colorado, and Gila Rivers.
Gila emoryi Baird and Girard, loc. cit., 388, Gila River.
811. *Gila robusta* Baird and Girard. *Roundtail*.
Tributaries of the Rio Colorado and Rio Gila; very common up to the foot of the mountains in Colorado.
Gila robusta Baird and Girard, Proc. Acad. Nat. Sci. Phila., VI, 1853, 368, Zuñi River.
Gila gracilis Baird and Girard, loc. cit., 369, Zuñi River.
Gila grahami Baird and Girard, loc. cit., 389, Rio San Pedro, tributary to Rio Gila.
Ptychocheilus vorax Girard, loc. cit., 1856, 209, locality unknown.
Leuciscus zunniensis Gunther, Cat., VII, 1868, 241, Zuñi River; substitute for *gracilis*, preoccupied in *Leuciscus*.
Gila affinis Abbott, Proc. Acad. Nat. Sci. Phila., XII, 1860, 474, probably erroneously ascribed to Kansas River.
Gila nacreæ Cope, Hayden's Geol. Surv. Wyo., 1870 (1871), 441, tributary of Green River, Wyo.; young, perhaps of *G. elegans*.
812. *Gila seminuda* Cope and Yarrow.
Rio Virgen, in Utah and Nevada.
Gila seminuda Cope and Yarrow, Wheeler's Surv., Zool., V, 1875, 666, Rio Virgen, Nev.
813. *Gila minacæ* Meek.
Streams of Chihuahua, Mexico.
Gila minacæ Meek, Field Col. Mus., Zool., III, May, 1902, 80, Rio Paphgochic, Miñaca, Chihuahua, Mex.
- Genus 301. *NOTEMIGONUS* Rafinesque.
Notemigonus Rafinesque, Jour. Phys., LXXXVIII, 1819, 420, (*N. auratus* Rafinesque = *Cyprinus crysoleucas* Mitchell).
Hemiplus Rafinesque, Anal. Nat., I, 1820, 6 (*H. lacustris* Rafinesque).

814. *Notemigonus crysoleucas* (Mitchill). *Roach; Sunfish; Dace; Butter-head; Shiner; Chub; Bream; Gudgeon; Young shad; Windfish.*
Nova Scotia and Maryland to the Dakotas.
Cyprinus crysoleucas Mitchill, Rept., Fish. N. Y., 1814, 23, New York.
Cyprinus hemiplus Rafinesque, Amer. Month. Mag., II, 1817, 121, Lake George, Saratoga, N. Y.
- *Notemigonus auratus* Rafinesque, Jour. Phys., LXXXVIII, 1819, 421, Ohio River
Hemiplus lacustris Rafinesque, Anal. Nat., I, 1820, 6, Lake George.
Abrams versicolor DeKay, N. Y. Fauna: Fishes, 1842, 191, Connecticut and Hudson Rivers; Peekskill.
815. *Notemigonus bosci* (Cuvier and Valenciennes).
Rivers of the South Atlantic States; abundant from the James to the Altamaha.
Leuciscus bosci Cuvier and Valenciennes, Hist. Nat. Poiss., XVII, 1844, 232 (313), Carolina, Pennsylvania, and New York.
Cyprinus americanus Linnæus, Syst. Nat., ed. XII, 1766, 530, Charlestown; name preoccupied.
Notemigonus ischanus Jordan, Ann. Lyc. Nat. Hist. N. Y., XI, 1876, 364, South Fork Ocmulgee River, Flat Shoals, Ga.
Luxilus leptosomus Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 203, Dry Creek, Victoria, Tex.
Luxilus seco Girard, loc. cit., 203, Rio Seco, tributary of Rio Nueces, Tex.
816. *Notemigonus gardoneus* (Cuvier and Valenciennes).
South Carolina.
Leuciscus gardoneus Cuvier and Valenciennes, Hist. Nat. Poiss., XVII, 1844, 235 (316), Charleston, S. C.; perhaps a hybrid.
- Genus 302. OPSOPŒODUS Hay.
Opsopæodus Hay, Proc. U. S. Nat. Mus., III, 1880, 507 (*O. emiliæ* Hay).
Trychærodon Forbes, in Jordan and Gilbert, Bull. U. S. Nat. Mus., XVI, 1882, 247 (*T. megalops* Forbes).
817. *Opsopæodus emiliæ* Hay.
Lake Erie and southern Indiana and Illinois to Georgia and Mississippi.
Opsopæodus emiliæ Hay, Proc. U. S. Nat. Mus., III, 1880, 507, Artesia, Macon, and Enterprise, Miss.
818. *Opsopæodus osculus* Evermann.
Rio Neches and other streams about Palestine and Houston, Tex.
Opsopæodus osculus Evermann, Bull. U. S. Fish Com., XI, 1891 (1892), 82, Neches River near Palestine, Tex.
819. *Opsopæodus borealis* Harper and Nichols. *Athabaska minnow.*
Streams of Alberta.
Opsopæodus borealis Harper and Nichols, Bull. Amer. Mus. Nat. Hist., XLI, 266, Lake Athabaska at Fort Chipewyan, Alberta, Canada.
820. *Opsopæodus megalops* (Forbes).
Western Ohio to Illinois.
Trychærodon megalops Forbes, in Jordan and Gilbert, Synopsis, 1883, 247, Illinois River at Pekin and Peoria, Ill.
- Genus 303. OPSOPŒA Jordan and Evermann.
Opsopæa Jordan and Evermann, Fishes North and Mid. Amer., 1896, 247 (*Opsopæodus bollmani* Gilbert).
821. *Opsopæa bollmani* (Gilbert).
Lowland swamps of the Southern States; known from Satilla River, Waycross, Ga., and Obion River, Cypress, Tenn.
Opsopæodus bollmani Gilbert, Bull. U. S. Fish Com., VIII, 1888 (1890), 226, Buckland Creek, Millen, Ga.
- Genus 304. ALGANSEA Girard.
Algansea Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 182 (*Leuciscus tincella* Cuvier and Valenciennes).
822. *Algansea tincella* (Cuvier and Valenciennes).
Lakes about the City of Mexico and in streams of central Mexico.
Leuciscus tincella Cuvier and Valenciennes, Hist. Nat. Poiss., XVII, 1844, 240 (323), City of Mexico.

823. *Algansea dugesi* Bean.
Central Mexico, in streams tributary to Rio de Lerma, Lake Yuriria in Guanajuato.
Algansea dugesi Bean, Proc. U. S. Nat. Mus., XV, 1892, 283, Lake Yuriria, Guanajuato, Mex.
? *Algansea tarascorum* Steindachner, Einige Fischarten Mexicos, 1895, 11, pl. 3, figs. 2-2c, Lake Patzcuaro, Mex.
824. *Algansea lacustris* Steindachner.
Lake Patzcuaro, Jalisco, Mexico.
Algansea lacustris Steindachner, Einige Fischarten Mexicos, 1895, 10, pl. 3, figs. 1 and 1b, Lake Patzcuaro.
825. *Algansea sallæi* (Günther).
Streams of central Mexico.
Ceratichthys sallæi Günther, Cat., VII, 1868, 484, Cuernavaca, Mex.
Zophendum australe Jordan, Proc. U. S. Nat. Mus., II, 1879, 300, Lake Tupataro, Mex., Rio Lerma.
826. *Algansea rubescens* Meek.
Lake Patzcuaro, Michoacan.
Algansea rubescens Meek, Field Col. Mus., Zool., V, 1905, 46, fig. 9, Lake Patzcuaro.
827. *Algansea stigmatura* Regan.
Northern Mexico
Algansea stigmatura Regan, Biol. Centrali-Amer., 1907, 152, Tab. XXV, fig. 2, Rio Grande de Santiago, Jalisco.
828. *Algansea affinis* Regan
Upper tributaries of Rio Lerma and Rio Panuco, Mexico.
Algansea affinis Regan, Biol. Centrali-Amer., 1907, 151, Tab. XXV, fig. 1, Aguas Calientes, Salamanca, and San Juan del Rio, Mexico.
- Genus 305. *POGONICHTHYS* Girard.
Pogonichthys Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 136 (*P. inæquilobus* Baird and Girard = *Leuciscus macrolepidotus* Ayres).
Symmetrurus Jordan, Hayden's Geol. Surv. Terr., IV, 1878, 788, (*Pogonichthys argyreus* Girard); young.
829. *Pogonichthys macrolepidotus* (Ayres). *Splittail*.
Streams of central California; very common in the Sacramento and San Joaquin Rivers.
Leuciscus macrolepidotus Ayres, Proc. Calif. Acad. Nat. Sci., I, in Placer Times and Transcript, May 30, 1854, San Francisco, Calif.
Pogonichthys inæquilobus Baird and Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 136, San Joaquin Valley, Calif.
Pogonichthys argyreus Girard, loc. cit., 153, Presidio, Calif.
- Genus 306. *MARGARISCUS* Cockerell.
Margariscus Cockerell, Proc. Biol. Soc. Wash., XXII, 1909, 217 (*Clinostomus margarita* Cope).
As a small barbel is normally present in this genus and placed above the tip of the maxillary, as in *Semotilus*, the genus must be placed near *Leucosomus*.
830. *Margariscus margarita* (Cope). *Minnow; Goldthread shiner; Pearl minnow*.
Lake Erie, south to James River and headwaters of the Kanawha.
Clinostomus margarita Cope, Trans. Amer. Phil. Soc., XIII, 1866, 377, Conestoga River, Lancaster, Pa.
831. *Margariscus nachtriebi*²⁵ (Cox).
North Dakota to New Brunswick.
Leuciscus nachtriebi U. O. Cox, Rept. U. S. Fish Com., XX, 1894 (1896), 615, Minnesota, Mille Lacs Lake.
Couesius plumbeus rubrilateralis Philip Cox, Bull. Nat. Hist., 2, 1901, 42, Miramichi, Canada.
Leuciscus carletoni Kendall, Bull. U. S. Fish Com., XXII, 1902, 357, fig. 1, Penobscot River, Me.

²⁵ "With much doubt we leave this species (*M. nachtriebi*) with *Margariscus*. The actual relation of this and other related forms is yet to be determined." (Jordan.)

Genus 307. LEUCOSOMUS Heckel. Fallfishes.

Leucosomus Heckel, Russeger's Reisen, 1, 1843, 1042 (*L. chrysoleucus* Heckel = *Cyprinus corporalis* Mitchill); not *Leucosoma* Gray, a genus of Salangidæ.

Cheilonemus Baird, in Storer, Hist. Fish. Mass., 1855, 285 (*Leuciscus pulchellus* Storer = *Cyprinus corporalis* Mitchill).

832. *Leucosomus corporalis* (Mitchill). Chub; Dace; Fallfish; Silver chub; Windfish; Corporal; Chwin.

Eastern United States, from the St. Lawrence to James River, Virginia; largest of our eastern Cyprinidæ; common northward, east of the Alleghenies.

Cyprinus corporalis Mitchill, Amer. Month. Mag., I, 1817, 289, Wallkill River, N. Y.

Cyprinus bullaris Rafinesque, loc. cit., II, Dec., 1817, 120, Hudson River.

Leuciscus argenteus Storer, Hist. Fish. Mass., 1839, 90, Worcester Co., Mass.

Leuciscus pulchellus Storer, loc. cit., 90, Walpole, Mass.

Leuciscus nitidus DeKay, N. Y. Fauna: Fishes, 1842, 209, Lake Champlain.

Leuciscus chrysopterus DeKay, loc. cit., 211, N. Y. Harbor.

Leuciscus rotengulus Cuvier and Valenciennes, Hist. Nat. Poiss., XVII, 1844, 236 (318), Carolinas.

Leucosomus cataractus Baird, Iconog. Encyl., II, 216, and in Cope, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 523, Susquehanna River.

Leucosomus rhothereus Cope, loc. cit., XIII, 1861, 523, Brandywine Creek and Rancocas Creek, Pa.

Squalius hyalope Cope, loc. cit., XVI, 1864, 280, Conestoga River, Pa.

Genus 308. SEMOTILUS Rafinesque. Horned dace.

Semotilus Rafinesque, Ichth. Ohiensis, 1820, 49 (*S. dorsalis* Rafinesque = *Cyprinus atromaculatus* Mitchill).

833. *Semotilus atromaculatus* (Mitchill). Horned dace; Creek chub; Chub; Silver chub; Mud chub.

Maine to New Jersey; westward to Kansas and Wyoming.

Cyprinus atromaculatus Mitchill, Amer. Month. Mag., II, 1818, 324, Wallkill River, N. Y.

Semotilus dorsalis Rafinesque, Ichth. Ohiensis, 1820, 49, Kentucky River.

Semotilus cephalus Rafinesque, loc. cit., 49, Ohio River.

Semotilus diploema Rafinesque, loc. cit., 50, Ohio River.

Leuciscus iris Cuvier and Valenciennes, Hist. Nat. Poiss., XVII, 1844, 190, (255), New York and Carolina.

Leuciscus storeri Cuvier and Valenciennes, loc. cit., 237 (255), New York.

Leuciscus pulchelloides Ayres, Proc. Bost. Soc. Nat. Hist., III, 1849, 157, Connecticut.

Leucosomus pallidus Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 190, Antelope Creek, Ark.

Leucosomus uncrassatus Girard, loc. cit., 1856, 190, Choctaw Agency.

Semotilus macrocephalus Girard, loc. cit., 1856, 204, Fort Pierre, Nebr.

Semotilus speciosus Girard, loc. cit., 1856, 204, Sweetwater River, Nebr.

Semotilus hammondi Abbott, loc. cit., XII, 1860, 474, Kansas.

834. *Semotilus atromaculatus thoreauanus* (Jordan).

Flint River, Ga.

Semotilus thoreauanus Jordan, Bull., U. S. Nat. Mus., X, 1877, 63, Flint River, Ga.

Genus 309. RICHARDSONIUS²⁶ Girard.

Richardsonius Girard, Proc., Acad. Nat. Sci. Phila., VIII, 1856, 201 (*Cyprinus* (Abramis) *baileatus* Richardson).

²⁶ The various American allies of *Leuciscus* Cuvier (type *Cyprinus leuciscus* L. of Europe, *Squalius*), we now divide among several genera, these corresponding to the subgenera in the previous check list. No species belonging to *Leuciscus*, as strictly defined, occurs in America or Asia. Many of the species, both in the groups allied to *Leuciscus* and *Rutilus* as well as in those related to *Hybopsis* and *Notropis* need comparison and verification.

Richardsonius is here restricted to the single species, *baileatus*, distinguished, with its variant, by the very long anal fin. The genus *Cheonoda* is provisionally recognized for species more or less similar to *Richardsonius* but with the anal fin shorter. This group seems to merge into *Tygoma*, species with the anal fin short and the scales rather loosely imbricated. One species, *caurina*, forms another intermediate type with short anal and very small scales. Any arrangement of these fishes must be still wholly provisional.

835. *Richardsonius siuslawi* (Evermann and Meek).
Streams of western Oregon.
Leuciscus siuslawi Evermann and Meek, Bull. U. S. Fish Com., XVII,
1897 (1898), 72, Siuslaw River, Mapleton, Oreg.
836. *Richardsonius lateralis* Girard.
Streams of Washington and Montana, a doubtful species, nominally
distinguished by the smaller number of anal rays.
Richardsonius lateralis Girard, Proc. Acad. Nat. Sci. Phila., VIII,
1856, 202, Fort Steilacoom, Wash.
Leuciscus gilli Evermann, Bull., U. S. Fish Com., XI, 1891, 44, Browns
Gulch Creek, Silver Bow, Mont.
837. *Richardsonius balteatus* (Richardson). *Red-sided bream*.
Columbia and Fraser Rivers, and streams about Puget Sound.
Cyprinus (Abramis) balteatus Richardson, Fauna Bor.-Amer., III,
1836, 301, Columbia River.
838. *Richardsonius thermophilus* Evermann and Cockerell.
Warm Springs, Silver Creek, and Silvies River, Oreg.
Richardsonius thermophilus Evermann and Cockerell, Proc. Biol. Soc.
Wash., XXII, December 8, 1909, 185, Warm Springs, Harney Co.,
Oreg.
- Genus 310. *CLARKINA* Jordan and Evermann.
Cyprinus (Leuciscus) caurinus Richardson is an ally of the genus
Richardsonius, differing in the short anal fin of 9 rays only. The
body is elongate and the scales (86) very small, well imbricated,
differing from the type of *Tigoma*.
Clarkina Jordan and Evermann, Proc. Calif. Acad. Sci., 4th ser., XVI,
1927 (April 27), 502 (*Cyprinus caurinus* Richardson).
839. *Clarkina caurina* (Richardson).
Cyprinus (Leuciscus) caurinus Richardson, Fauna Bor.-Amer., III,
1836, 304, Columbia River at Fort Vancouver.
Leuciscus caurinus Snyder, Bull. U. S. Fish Com., XXVII, 1907, 173;
not *Mylocheilus caurinus* Agassiz; Willamette River near Corvallis,
Oreg.
- Genus 311. *CHEONDA* Girard.
Cheonda Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 207 (*C.*
cooperi Girard); scales moderate; anal rays 8 to 11, usually 9.
840. *Cheonda cooperi* Girard.
Lower Columbia River Basin.
Cheonda cooperi Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 207,
Columbia River, Fort Vancouver, Wash.
841. *Cheonda microdon* (Snyder).
Richardsonius microdon Snyder, Bull. U. S. Bur. Fish., XXXV, 1915-16
(1918), 58; scales 55; anal rays 8 or 9.
842. *Cheonda egregia* (Girard).
Nevada to northern California; known from the Humboldt, Truckee,
and Sacramento-San Joaquin Basins and Napa Valley, Calif.
Tigoma egregia Girard, Pac. R. R. Surv., X, 1858, 291, locality Hum-
boldt River at Imlay, Nev.
Gila ardesiaca Cope, Wheeler Surv., Zool., V, 1875, 660, Pl. XXX,
figs. 1, 1a, locality unknown, probably Nevada.
Squalius galtii Cope, Proc. Acad. Nat. Sci. Phila., XXXV, 1883, 148,
Pyramid Lake, Nev.
Phoxinus clevelandi C. H. and R. S. Eigenmann, West Amer. Scientist,
1889, 149, Etna Springs, Napa County, Calif. (locality probably
erroneous).
843. *Cheonda evermanni* (Juday).
South Platte basin.
Leuciscus evermanni Juday, Bull. U. S. Bur. Fish., XXIV, 1904 (1905),
226, with plate, Boulder Creek, Boulder, Colo.; A. 8; scales 47; teeth
2, 5-5, 1.

844. *Cheonda hydrophlox* (Cope). *Silverside minnow*; *Po-hs-wa*.
Salt Lake basin and upper Snake River.
Clinostomus hydrophlox Cope, Hayden's Geol. Surv. Mont., 1871, 475,
Blackfoot Creek, Idaho.
? *Clinostomus tzenia* Cope, Proc., Amer. Phil. Soc., XIV, 1874, 133,
Utah Lake, Provo, Utah.
845. *Cheonda humboldti* (Girard).
Locality doubtful.
Tigoma humboldti Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 206,
Humboldt River, Nev.; may be identical with *C. hydrophlox*, but this
seems unlikely.
846. *Cheonda montana* (Cope).
Clinostomus montanus Cope, Hayden's Geol. Surv. Mont., 1871, 476,
Grass Creek, Idaho.
? *Clinostomus tzenia* Cope, Proc., Amer. Phil. Soc., XIV, 1874, 133,
Utah Lake, Provo, Utah.
May prove to be the same as *C. hydrophlox*.
847. *Cheonda copei* (Jordan and Gilbert). *Leather-sided minnow*.
Great Basin of Utah and Wood River, Idaho.
? *Tigoma gracilis* Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 206,
locality unknown; species unidentifiable, name preoccupied in
Leuciscus.
Squalius copei Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 461,
Bear River, Evanston; not *Leuciscus copei* Gunther, a *Notropis*.
Squalius alviciæ Jouy, loc. cit., IV, 1881, 19, Provo River near Utah
Lake, Utah.
- Genus 312. **TIGOMA** Girard.
Tigoma Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 205 (*Gila
pulchella* Baird and Girard).
Protoporus Cope, Hayden's Geol. Surv. Mont., 1871 (1872), 473 (*P.
dominus* Cope, young of *Tigoma atraria* Girard).
Myloleucus Cope, loc. cit., 475 (*M. pulverentulus* Cope); the teeth of
Siphateles accidentally placed in the pharynx of a *Tigoma*.
Temeculina Cockerell, Proc. Biol. Soc. Wash., XXII, 1909, 216 (*Rich-
ardsonius orcutti* Eigenmann and Eigenmann).
848. *Tigoma atraria* (Girard).
Great Basin of Utah, and Snake River Basin above Shoshone Falls.
? *Tigoma lineata* Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 206,
locality unknown; not identifiable.
Siboma atraria Girard, loc. cit., 208, Fish Springs, Toole Co., Utah,
near Desert.
Tigoma squamata Gill, Proc. Bost. Soc. Nat. Hist., VIII, 1861, 42,
Great Salt Lake Basin.
Protoporus dominus Cope, Hayden's Geol. Surv. Mont., 1871, 473,
Snake River, Fort Hall, Idaho.
Hybopsis bivittatus Cope, loc. cit., 474, Warm Springs, Utah.
Hybopsis timpanogensis Cope, Proc. Amer. Phil. Soc., XIV, 1874, 134,
Timpanogus, Utah; young.
Squalius cruoreus Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880,
460, Provo River, Utah.
Squalius rhomaleus Jordan and Gilbert, loc. cit., 461, Utah Lake, Utah.
849. *Tigoma gibbosa* (Baird and Girard).
Rio Gila, Ariz.
Gila gibbosa Baird and Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854,
28, Rio Santa Cruz, Ariz.
Tigoma intermedia Girard, loc. cit., VIII, 1856, 206, Rio San Pedro of
the Gila, Ariz.
Gila nigra Cope, Wheeler's Surv., Zool., V, 1875, 663, Ash Creek and
San Carlos, Ariz.
Squalius lemmoni Rosa Smith, Bull. Calif. Acad. Sci., I, 1884, 3, Rillitto
Creek, near Tucson, Ariz.
850. *Tigoma purpurea* Girard.
San Bernardino Creek in southern Arizona, a tributary of Rio Yaqui.
Tigoma purpurea Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 206,
San Bernardino Creek, Ariz.

- 851. *Tigoma pulchella* (Girard).** *Pescadito; Chub of the Rio Grande.*
 Rio Grande and other Mexican rivers.
Gila pulchella Baird and Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 29, Rio Mimbres, Chihuahua; not *Leuciscus pulchella* Storer, a *Cheilonemus*.
Tigoma nigrescens Girard, loc. cit., VIII, 1856, 207, Boca Grande and Rio Janos, Chihuahua, Mexico.
Tigoma pulchra Girard, loc. cit., 207, Boca Grande and Rio Janos; Chihuahua River, Mexico.
Clinostomus pandora Cope, Hayden's Geol. Surv. Mont., 1871, 475, tributaries Rio Grande, Sangre de Cristo Pass.
Gila gila Cope, Wheeler's Surv., Zool., V, 1875, 661, Rio de Acama and near Fort Wingate, N. Mex.
Cheonda modesta Garman, Bull. Mus. Comp. Zool., VIII, 1881, 92, Rio Salinas, Saltillo, Coahuila.
Gila conspersa Garman, loc. cit., VIII, 1881, 91, Rio Nazas, Coahuila, Mexico.
- 852. *Tigoma bicolor* Girard.**
 Klamath Lake, Oreg.
Tigoma bicolor Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 206, Klamath Lake, Oreg.
Cheonda cerulea Girard, loc. cit., 207, Lost River, Oreg.
- 853. *Tigoma pulverulenta* (Cope).**
Myloleucus pulverulentus Cope, Hayden's Geol. Surv. Mont., 1871, 475, Warm Springs, Utah.
Myloleucus is a synonym of *Tigoma*. In his study of these species, according to Fowler, Professor Cope by accident replaced the single-rowed teeth of a *Siphateles* in his type example of *Myloleucus pulverulentus*, a species having teeth in two rows.
- Subgenus TEMECULINA Cockerell.**
- 854. *Tigoma orcutti* (Eigenmann and Eigenmann).**
 Temecula, San Luis Rey, San Jacinto, and Santa Ana Rivers, California.
Phoxinus orcutti Eigenmann and Eigenmann, Proc. Calif. Acad. Sci., 2nd ser., III, 1890, 2, Temecula River, Riverside County, Calif.
- Genus 313. SIBOMA Girard.**
Siboma Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 209 (*S. crassicauda* Girard).
- 855. *Siboma crassicauda* (Baird and Girard).** *Sacramento chub.*
 Rivers of California; generally abundant in the Sacramento and San Joaquin Rivers.
Lavinia crassicauda Baird and Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 137, San Joaquin River.
Tigoma crassa Girard, loc. cit., VIII, 1856, 207, Sacramento River.
- 856. *Siboma conformis* (Baird and Girard).**
 Tulare Valley and Sacramento-San Joaquin Basin, Calif.
Lavinia conformis Baird and Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 137; Poso Creek, Tulare County, Calif.
- Genus 314. CLINOSTOMUS Girard.**
Clinostomus Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 211 (*Luxilus elongatus* Kirtland).
- 857. *Clinostomus elongatus* (Kirtland).** *Red-sided shiner.*
 Great Lakes, upper Mississippi Valley, and New York.
Luxilus elongatus Kirtland, Rept. Zool. Ohio, 1836, 169, 193, Mahoning River, Ohio, and Lake Erie near Cleveland.
Leuciscus productus Storer, Synopsis, 1846, 416, Wabash River.
 ?*Leuciscus longirostris* Kirtland, The Family Visitor, Mar. 14, 1850, Cleveland, Ohio, and Hudson River.
Squalius proriger Cope, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 280, Michigan.

- 858. *Clinostomus vandoisulus*** (Cuvier and Valenciennes). *Minnow; Long-mouthed minnow; Rosy dace; Pike shiner.*
Leuciscus vandoisulus Cuvier and Valenciennes, Hist. Nat. Poiss., XVII, 1844, 236 (317), South Carolina.
Clinostomus affinis Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 212, James River, Va.
Clinostomus funduloides (Potomac River at Washington) and *carolinus* (Salem, N. C.) Girard, loc. cit., 212.
Gila estor Jordan and Brayton, Bull. U. S. Nat. Mus., XII, 1878, 66, Elk River, Estill Springs, Tenn.
- Genus 315. HEMITREMIA** Cope.
Hemitremia Cope, Proc. Amer. Phil. Soc., XI, 1870, 462 (*H. vittata* Cope=*Phoxinus flammeus* Jordan and Gilbert).
- 859. *Hemitremia vittata*** Cope.
 Tributaries of the Tennessee River; common in clear streams in northern Alabama.
Hemitremia vittata Cope, Proc. Amer. Phil. Soc., XI, 1870, 462, Holston River, Knoxville, Tenn.; *vittatus* is preoccupied in *Leuciscus*.
Phoxinus flammeus Jordan and Gilbert, in Jordan, Man. Vert., ed. 2, 1878, 303, Elk River, Tenn.
- 860. *Hemitremia milneriana*** (Cope).
 Upper Missouri River Basin.
Phoxinus milnerianus Cope, Amer. Nat., July, 1879, 440, upper Missouri River Basin; probably Battle Creek, Mont.
- Genus 316. PFRILLE** Jordan.
Pfrille Jordan, Copeia, No. 32, 1924, 71 (*Phoxinus neogæus* Cope).
- 861. *Pfrille neogæa*** (Cope). *Bronze minnow.*
 Upper Mississippi Valley and neighboring waters; also Maine and Connecticut lakes.
Phoxinus neogæus Cope, Trans. Amer. Phil. Soc., XIII, 1866, 375, New Hudson, Mich.
 ?*Leuciscus burtonianus* LeSueur, in Vaillant, Bull. Soc. Philom., VIII, 1896, 28, with plate, Burton Mine, Mo.; perhaps a distinct species.
- Genus 317. IOTICHTHYS** Jordan and Evermann.
Iotichthys Jordan and Evermann, Fishes North and Mid. Amer., 1896, 228 (*Clinostomus phlegethontis* Cope).
- 862. *Iotichthys phlegethontis*** (Cope).
 Tributaries of Great Salt Lake and Sevier Lake; basin of Lake Bonneville.
Clinostomus phlegethontis Cope, Proc. Amer. Phil. Soc., XIV, 1874, 137, Beaver River, Utah.
- Genus 318. HESPEROLEUCUS** Snyder.
Hesperoleucus Snyder, Bull. U. S. Bur. Fish., XXXII, 1912, 63 (*Pogonichthys symmetricus* Girard).
Myloleucus Cope, Hayden's Geol. Surv. Mont., 1871, 475 (*M. pulverulentus* Cope=*Pogonichthys symmetricus* Baird and Girard, in part, not type, the teeth having been misplaced).
 This genus and others related, having the teeth 4-5 or 5-5, were placed in the former check list and the Fishes of North and Middle America, in the European genus *Rutilus* Rafinesque; but no American or Asiatic dace is congeneric with *Rutilus rutilus* L.
- 863. *Hesperoleucus symmetricus*** (Baird and Girard).
 Rivers of California and Nevada and waters of Lake County, Oreg.
Pogonichthys symmetricus Baird and Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 136, Fort Miller, San Joaquin Valley, Calif.
Myloleucus parovanus Cope, Proc. Amer. Phil. Soc., XIV, 1874, 131, Beaver River, Utah.
- 864. *Hesperoleucus navarroensis*** Snyder. *Navarro roach.*
 Navarro Basin on the western coast of northern California.
Hesperoleucus navarroensis Snyder, Bull. U. S. Bur. Fish., XXXII, 1912 (1914), 65, Navarro River near Philo, Calif.

865. *Hesperoleucus parvipinnis* Snyder. *Short-finned roach*.
Gualala River Basin, Calif.
Hesperoleucus parvipinnis Snyder, Bull. U. S. Bur. Fish., XXXII, 1912 (1914), 66, Gualala River, Sonoma County, Calif.
866. *Hesperoleucus venustus* Snyder. *Venus roach*.
Russian River and the streams entering San Pablo, Suisun, and San Francisco Bays.
Hesperoleucus venustus Snyder, Bull. U. S. Bur. Fish., XXXII, 1912 (1914), 64, fig. 2, Coyote Creek near Gilroy Hot Springs, Calif.
867. *Hesperoleucus mitrulus* Snyder. *Northern roach*.
Streams tributary to the north end of Goose Lake, Oreg.
Hesperoleucus mitrulus Snyder, Bull. U. S. Bur. Fish., XXXII, 1912, (1914), 67, Drew Creek, Lake County, Oreg.
868. *Hesperoleucus subditus* Snyder. *Monterey roach*.
Pajaro River system in the region of foothills and lower mountain ranges of coast ranges.
Hesperoleucus subditus Snyder, Bull. U. S. Bur. Fish., XXXII, 1902 (1904), 67, fig. 3, Uvas Creek, Pajaro River Basin, Santa Clara County, Calif.
869. *Hesperoleucus mearnsi* (Snyder).
Rio Yaqui.
Notropis mearnsi Snyder, Proc., U. S. Nat. Mus., XLIX, 1916 (Dec. 23, 1915), 582, fig., Rio San Bernardino, Yaqui Basin, Sonora, Mexico.
870. *Hesperoleucus anticus* (Cope).
Texas.
Algansea antica Cope, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 282, Texas.
- Genus 319. SIPHATELES Cope.
Siphateles Cope, Proc. Acad. Nat. Sci. Phila., XXXV, 1883, 146 (*S. vittatus* Cope); young example.
871. *Siphateles olivaceus* (Cope).
Lake Tahoe; Pyramid Lake; Eagle Lake and Willow Creek, Calif.
Leucus olivaceus Cope, Proc. Acad. Nat. Sci. Phila., XXXV, 1883, 145, Pyramid Lake, Nev.
872. *Siphateles obesus* (Girard).
Lakes and streams of Lahontan Basin.
Algansea obesa Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 183, Humboldt River, Nev.
Leucus dimidiatus Cope, loc. cit., XXXV, 1883, 145, Pyramid Lake, Nev.
Siphateles vittatus Cope, loc. cit., 146, Pyramid Lake, Nev.
873. *Siphateles bicolor* (Girard).
Lakes of southeastern Oregon (Klamath, Warner, Goose, etc.); Sacramento-San Joaquin Basin; Pit River.
Algansea bicolor Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 183, Klamath Lake.
874. *Siphateles formosus* (Girard).
Algansea formosa Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 183, Merced and Mohave Rivers, Calif.
Myloleucus thalassinus Cope, loc. cit., XXXV, 1883, 144, Goose Lake, Oreg.
875. *Siphateles columbianus* (Snyder).
Lakes of southeastern Oregon.
Rutilus columbianus Snyder, Bull. U. S. Bur. Fish., XXVII, 1907, 92, fig. 4, Warm Springs near Harney Lake, Harney County, Oreg.
876. *Siphateles oregonensis* (Snyder).
Lakes of southeastern Oregon.
Rutilus oregonensis Snyder, Bull. U. S. Bur. Fish., XXVII, 1907, 87, fig. 3, XL, Spring, Abert Lake, Oreg.

877. *Siphateles mohavensis* Snyder.
Mohave River, Calif.
Siphateles mohavensis Snyder, Proc. U. S. Nat. Mus., LIV, 1919 (Mar. 15, 1918), 298, figure, Mohave River near Victor, Calif.
- Genus 320. *LEUCIDIUS* Snyder.
Leucidus Snyder, Bull. U. S. Bur. Fish., XXXV, 1917, 64 (*L. pectinifer* Snyder).
878. *Leucidus pectinifer* Snyder. *Lake minnow*.
Lahontan system, Nevada and northeastern California.
Leucidus pectinifer Snyder, Bull. U. S. Bur. Fish., XXXV, 1916-17 (Sept. 28, 1917), 64, figs. 5 and 6, Pyramid Lake, Nev.
- Genus 321. *NOTROPIS* Rafinesque.
*Notropis*²⁷ Rafinesque, Amer. Month. Mag., II, 1818, 204 (*Notropis atherinoides* Rafinesque = ? *Alburnus rubellus* Agassiz).
Minnulus Rafinesque, Ichth. Ohiensis, 1820, 45 (*M. dinemus* Rafinesque).
Alburnellus Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856 (*A. dilectus* Girard).
Photogenis Cope, Trans. Amer. Phil. Soc., XIII, 1867, 378 (*Squalius photogenis* Cope = *Photogenis leucops* Cope).
879. *Notropis atherinoides* Rafinesque. *Shiner*; *Emerald minnow*; *Rosy minnow*.
Great Lakes region and Ohio and Mississippi Valleys, and north to Winnipeg.
Notropis atherinoides Rafinesque, Amer. Month. Mag., II, 1818, 204, Lake Erie.
Minnulus dinemus Rafinesque, Ichth. Ohiensis, 1820, 46, Ohio River.
Alburnus rubellus Agassiz, Lake Superior, 1850, 364, pl. 3, figs. 1-3, Sault Ste. Marie and the Pic, Lake Superior.
Alburnus nitidus Kirtland, Cleveland Ann. Sci., 1854, 44, tributaries of Lake Erie.
Alburnellus jaculus Cope, Trans., Amer. Phil. Soc., XIII, 1866 (1869), 387, St. Joseph River and Dowagiac River, Mich.
Leuciscus copii Günther, Cat., VII, 1868, 255, Virginia and Michigan;
Alburnus jaculus, preoccupied
880. *Notropis photogenis* (Cope). *Silvery minnows*.
Allegheny region.
? *Rutilus compressus* Rafinesque, Ichth. Ohiensis, 1820, 51, Monongahela River, not certainly identifiable; may be *Luxilus cornutus*.
Squalius photogenis Cope, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 280, Youghiogheny River, Pa.
Photogenis leucops Cope, loc. cit., XIX, 1867, 164, Sinking Creek, and near Austinville, Va.
Photogenis leucops engraulinus Cope, loc. cit., 164, tributaries of Kanawha River, Austinville, Va.
881. *Notropis amoenus* (Abbott).
Clear streams of the Alleghenies from the Raritan to the Neuse.
Alburnellus amoenus Abbott, Amer. Nat., VIII, 1874, 334, Raritan River, N. J.
882. *Notropis scepticus* (Jordan and Gilbert).
Rivers of the Carolinas from Cape Fear to the Santee.
Notropis photogenis ("pale variety"), Jordan and Brayton, Bull. U. S. Nat. Mus., XII, 1878, 23.
Minnulus scepticus Jordan and Gilbert, Synopsis, 1883, 200, Saluda River, S. C.

²⁷ The name *Notropis atherinoides* was given by Rafinesque to a small and very slender minnow from Lake Erie. It was apparently a semi-dried example having therefore a ridge on the back as implied in the name *Notropis*. It had a long anal fin of 11 rays, and the dorsal inserted behind the ventrals. Among the small minnows of the Great Lakes it could hardly be anything else than *rubellus*, yet the original description is very incomplete and perhaps not identifiable. As this is the oldest name for any of the small American minnows with four teeth in the main row of the pharyngeals, and as distinctions of genera among these is especially difficult, the writers in 1893 extended the name to include them all. But this assemblage is hardly a natural one, as the species diverge in various directions. Hence, in this catalogue the former subgenera are given generic rank.

883. *Notropis telescopus* (Cope).
Tennessee River Basin; very abundant in cold mountain streams.
Photogenis telescopus Cope, Proc. Acad. Nat. Sci. Phila., XIX, 1867
165, Holston River, Va.
884. *Notropis arcansanus* (Meek).
Ozark region
Notropis telecopus arcansanus Meek, Bull. U. S. Fish Com., IX, 1889
(1891), 133, White River, Eureka Springs, Ark.
885. *Notropis universitatis* Evermann and Cockerell.
Boulder Creek, Boulder, Colo.
Notropis notatus var., Univ. of Colo. Stud., Apr., 1908, 170.
Notropis universitatis Evermann and Cockerell, Proc. Biol. Soc. Wash.,
XXII, Dec., 1909, 187, Boulder Creek, Boulder, Colo.
886. *Notropis welaka* Evermann and Kendall.
St. Johns River, Fla.
Notropis welaka Evermann and Kendall, Bull. U. S. Fish Com., XVII,
1897 (Feb. 9, 1898), 126, pl 6, fig. 2, St. Johns River near Welaka,
Fla.
887. *Notropis leuciodus* (Cope).
Tennessee River Basin, in mountain streams.
Photogenis leuciodus Cope, Proc. Acad. Nat. Sci. Phila., XIX, 1867,
165, Holston River, Va.
888. *Notropis micropteryx* (Cope).
Headwaters of Cumberland and Tennessee Rivers; also in Ozark region.
Alburnellus micropteryx Cope, Jour. Acad. Nat. Sci. Phila., VI, 1868,
233, Holston River, Va.
889. *Notropis metallicus* Jordan and Meek.
Swamp streams in Georgia and Florida, from the Suwanee Basin to
the Escambia.
Notropis metallicus Jordan and Meek, Proc. U. S. Nat. Mus., VII,
1884, 475, Allapaha River, Nashville, Ga.
890. *Notropis louisianæ* Evermann.
Atchafalaya River, La.
Notropis louisianæ Evermann, in Jordan and Evermann, Fishes North
and Mid. Amer., 1898, 2801, Atchafalaya River, Melville, La.
891. *Notropis socius* (Girard).
Live Oak Creek, southwestern Texas.
Alburnus socius Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 193,
Live Oak Creek, Tex.
892. *Notropis amabilis* (Girard).
Rio Leona, a tributary of Rio Nueces, Tex.
Alburnus amabilis Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856,
193, Rio Leona, Tex.
893. *Notropis arge* (Cope).
Upper Mississippi Valley.
Alburnellus arge Cope, Trans. Amer. Phil. Soc., XIII, 1866, 388, Detroit
River or St. Joseph River, Mich.
894. *Notropis pilsbryi* Fowler.
Notropis pilsbryi Fowler, Proc. Acad. Nat. Sci. Phila., LVI, 1904, 245,
figure, Rogers, White River Basin, Ark.
895. *Notropis rubrifrons* (Cope). *Rosy-faced minnow*.
New York and western Pennsylvania to southern Michigan, Kansas,
and Kentucky.
Alburnus rubrifrons Cope, Proc. Acad. Nat. Sci. Phila., XVII, 1865, 85,
Kiskiminitas River, a tributary of Allegheny River.
Alburnellus percobromus Cope, Hayden's Geol. Surv. Wyo., 1870, 440,
Missouri River at St. Joseph, Mo.

896. *Notropis dilectus* (Girard).
Lower Ohio to the Rio Grande, abundant in Arkansas and eastern Texas in sandy streams
Alburnus dilectus Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 193,
Arkansas River, Fort Smith, Ark.
Alburnus lepidulus Girard, loc. cit., 212, Black Warrior River, Ala
Alburnus oligaspiis Cope, loc. cit., XVI, 1864, 282, Kansas.
Alburnellus jemezianus Cope, Wheeler Surv., Zool., V, 1875, 650, Rio Grande, San Ildefonso, Mexico.
897. *Notropis stilbius* (Jordan).
Alabama River and tributaries.
Nototropis stilbius Jordan, Ann. Lyc. Nat. Hist. N. Y., XI, 1876, 343,
Etowah and Oostanaula Rivers, Rome, Ga.
898. *Notropis notemigonoides* Evermann
Rio Neches near Palestine, Tex., and streams about Houston, Tex
Notropis notemigonoides Evermann, Bull. U. S. Fish Com., XI, 1891
(1892), 81, Neches River, Palestine, Tex., and Sims Bayou, Houston,
Tex.
899. *Notropis fumeus* Evermann.
Hunter Creek, Houston, Tex.
Notropis fumeus Evermann, Bull. U. S. Fish Com., XI, 1891 (1892),
81, Hunter Creek, Houston, Tex.
- Genus 322. *PARANOTROPIS* Fowler.
Episema Cope and Jordan, Bull. U. S. Nat. Mus., X, 1877, 64 (*Photogenis*
scabriceps Cope, name preoccupied)
Paranotropis Fowler, Proc. Acad. Nat. Sci. Phila., LVI, 1904, 245
(*Photogenis scabriceps* Cope).
900. *Paranotropis scabriceps* (Cope).
Kanawha River, W. Va.
Photogenis scabriceps Cope, Proc. Acad. Nat. Sci. Phila., XIX, 1867,
166, Sinking and Walker Creeks, tributaries of Kanawha River.
901. *Paranotropis ariommus* (Cope).
Ohio and Tennessee Valleys.
Photogenis ariommus Cope, Trans. Amer. Phil. Soc., XIII, 1866, 378,
no locality given.
902. *Paranotropis jejuna* (Forbes)
Western Pennsylvania to Kansas and north to Winnipeg.
Episema jejuna Forbes, Bull. Ill. Lab. Nat. Hist., I, 1878, 60, Illinois
River
903. *Paranotropis megalops* (Girard).
Rivers of Texas from the Colorado westward.
Alburnus megalops Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856,
193, San Felipe Creek, Tex.; the name preoccupied in *Notropis*
(*Luxilus*) but not in *Paranotropis*.
- Genus 323. *LYTHRURUS* Jordan.
Lythrurus Jordan, Man. Vert., ed. 1, 1876, 272 (*Notropis lythrurus*
Jordan = *Semotilus diplæmius* of authors, not of Rafinesque).
904. *Lythrurus umbratilis* (Girard).
Arkansas River and streams of Kansas and southwestern Iowa.
Alburnus umbratilis Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856,
193, Sugar Loaf Creek, tributary of Poteau River, Ark
Luxilus lucidus Girard, loc. cit., 203, Coal Creek, tributary of South Fork
of Canadian River.
Minnilus nigripinnis Gilbert, Bull., Washburn Lab. Nat. Hist., I, 1884,
14, Shunganunga Creek near Topeka, Kans.
? *Notropis macrolepidotus* Forbes, Bull. Ill. Lab. Nat. Hist., II, 1885, 138,
Illinois.

905. *Lythrurus cyanocephalus* Copeland.
Rivers of southern Wisconsin to Ohio and Kentucky and Indiana.
Lythrurus cyanocephalus Copeland, Proc. Acad. Nat. Sci. Phila., XXIX, 1877, 70, Racine River, Wis.
Rutilus ruber Rafinesque, Ichth. Ohiensis 1820, 52, Elkhorn and Kentucky Rivers; named but not described.
Notropis lythrurus Jordan, Proc., U. S. Nat. Mus., VII, 1884, 476, White River, Indianapolis; a rather more slender southern form.
906. *Lythrurus atripes* Jordan. *Blackfin; Compressed redfin.*
Southern Illinois and Iowa.
Lythrurus atripes Jordan, Bull. Ill. Lab. Nat. Hist., No. 2, 1878, 59, streams of Union and Johnson Counties, Ill.
907. *Lythrurus ardens* (Cope).
Roanoke River, Va.
Hypsilepis ardens Cope, Proc. Acad. Nat. Sci. Phila., XIX, 1867, 163, headwaters of Roanoke River, Montgomery County, Va.
908. *Lythrurus fasciolaris* (Gilbert).
Southern bend of Tennessee River, in limestone streams.
Notropis umbratilis fasciolaris Gilbert, Bull. U. S. Fish Com., IX, 1889 (1891), 148, streams about Florence, Ala.
909. *Lythrurus matutinus* (Cope).
Neuse and Pamlico Rivers; common in sandy brooks.
Alburnellus matutinus Cope, Proc. Amer. Phil. Soc., XI, 1870, 465, Neuse River, Wake County, N. C.
910. *Lythrurus punctulatus* (Hay).
Tributaries of Big Hatchee River, northern Mississippi.
Minnilus punctulatus Hay, Proc. U. S. Nat. Mus., III, 1880, 508, Tuscumbia River, a tributary of the Big Hatchee, near Corinth, Miss.
911. *Lythrurus bellus* (Hay).
Tombigbee River, Miss.
Minnilus bellus Hay, Proc. U. S. Nat. Mus., III, 1880, 510, Tombigbee River, Artesia and Macon, Miss.
912. *Lythrurus roseipinnis* (Hay).
Sandy streams of Gulf States, from Escambia River to the Chickasawha.
Notropis roseipinnis Hay, in Jordan, Cat. Fishes N. Amer., 1885, 27, Chickasawha River, Enterprise, Miss.; substitute for *rubripinnis*, preoccupied.
913. *Lythrurus lirus* (Jordan).
Alabama River Basin; abundant in sandy streams.
Nototropis lirus Jordan, Ann. Lyc. Nat. Hist. N. Y., XI, 1876, 342, Etowah River, Rome, Ga.
Notropis alabamæ Jordan and Meek, Proc. U. S. Nat. Mus., VII, 1884, 476, Alabama River, Montgomery, Ala.
- Genus 324. **ORCELLA** Jordan and Evermann
Orcella Jordan and Evermann, Fish. North and Mid. Amer., 1896, 254 (*N. orca* Woolman); not "*Orcella*," a genus of Cetacea.
Orcula Jordan and Evermann, loc. cit., 1900, 3140, substitute for *Orcella*, regarded as preoccupied by *Orcella*.
914. *Orcella nazas* (Meek).
Headwaters of the Rio Nazas in Durango, Mexico.
Nototropis nazas Meek, Field Col. Mus., Zool., V, 1904, 70, fig. 19, Santiago Papasquiaro, Durango, Mexico.
915. *Orcella orca* (Woolman).
Rio Grande at El Paso, Tex.
Notropis orca Woolman, Bull. U. S. Fish Com., XIV, 1894, 56, Rio Grande, El Paso, Tex.
- Genus 325. **HYDROPHLOX** Jordan and Brayton
Hydrophlox Jordan and Brayton, Bull. U. S. Nat. Mus., XIII, 1878, 32 (*Hybopsis rubricroceus* Cope).

916. *Hydrophlox rubricroceus* (Cope). *Red fallfish*.
Headwaters of the Tennessee and Savannah Rivers.
Hybopsis rubricroceus Cope, Jour. Acad. Nat. Sci. Phila., VI, 1868, 231,
Tumbling Creek, tributary of the North Fork of Holston River, Va.
917. *Hydrophlox chlorocephalus* (Cope).
Santee Basin, in North and South Carolina
Hybopsis chlorocephalus Cope, Proc. Amer. Phil. Soc., XI, 1870, 461,
Catawba River, N. C.
918. *Hydrophlox lutipinnis* Jordan and Brayton.
Santee and Oconee Rivers, Ga.
Hydrophlox lutipinnis Jordan and Brayton, Bull. U. S. Nat. Mus.,
XII, 1878, 36, Oconee River, Halls Springs, Ga.
919. *Hydrophlox chiliticus* (Cope).
Basin of Great Pedee River, N. C.; common in upland streams.
Hybopsis chiliticus Cope, Proc. Amer. Phil. Soc., XI, 1870, 462, Yadkin
River, Rowan County, N. C.
920. *Hydrophlox altipinnis* (Cope).
Yadkin, Great Pedee, and Cape Fear Rivers, N. C.
Alburnellus altipinnis Cope, Proc. Amer. Phil. Soc., XI, 1870, 464,
Yadkin River, Rowan County, N. C.
921. *Hydrophlox roseus* (Jordan).
Lowland streams of Gulf States from Ogeechee River to the Mississippi.
Luxilus roseus Jordan, Bull. U. S. Nat. Mus., X, 1877, 61, Notalbany
River near Tikfaw, La
922. *Hydrophlox stonei* (Fowler).
Streams of South Carolina.
Notropis stonei Fowler, Proc. Acad. Nat. Sci. Phila., LXXII, 1920, 391,
figure, Pocataligo River, Manning, S. C.
923. *Hydrophlox chalybæus* (Cope).
Delaware River to Ogeechee River.
Hybopsis chalybæus Cope, Trans., Amer. Phil. Soc., XIII, 1866, 383,
Schuylkill River, Pa.
924. *Hydrophlox abbotti* (Fowler).
Notropis chalybæus abbotti Fowler, Proc. Acad. Nat. Sci. Phila., LVI,
1904, 239, Pl. XVII, upper figure, Batsto River, N. J.
925. *Hydrophlox chrosomus* (Jordan).
Alabama Basin; very abundant in clear streams and outlets of springs.
Hybopsis chrosomus Jordan, Ann. Lyc. Nat. Hist. N. Y., XI, 1876, 333,
Etowah River, etc., Rome, Ga.
926. *Hydrophlox xænocephalus* (Jordan).
Georgia to Mississippi; common in streams of the pine woods, descending
to brackish water; abundant in Perdido Bay, Pensacola, Fla.
Hybopsis xænocephalus Jordan, Ann. Lyc. Nat. Hist. N. Y., XI, 1876,
334, Etowah River, etc., Rome, Ga.
- Genus 326. COCCOTIS Jordan
Coccotis Jordan, Rept. Zool. Ohio, 1882, 852 (*Hypsilepis coccogenus*
Cope).
Coccogenia Cockerell, Proc. Biol. Soc. Wash., XXII, 1909, 190 (*Hypsilepis coccogenus* Cope).
927. *Coccotis coccogenis* (Cope).
Cumberland, Tennessee, and Savannah Rivers.
Hypsilepis coccogenis Cope, Proc. Acad. Nat. Sci. Phila., XIX, 1867,
160, Holston River, Va.
928. *Coccotis brimleyi* (B. A. Bean).
Notropis brimleyi B. A. Bean, Proc. U. S. Nat. Mus., XXVI, 1903, 913,
Cane River, N. C.
929. *Coccotis macdonaldi* (Jordan and Jenkins).
Mountain streams of Virginia tributary to the James and Shenandoah.
Notropis macdonaldi Jordan and Jenkins, Proc. U. S. Nat. Mus., XI,
1888, 354, plate 44, fig. 4, Shenandoah River, Luray, Va.

930. *Coccotis zonatus* (Agassiz).
Mountain streams in the Ozark region of Missouri and Arkansas.
Alburnus zonatus Agassiz, Bull. Mus. Comp. Zool., I, 1863, 9, Osage River, Mo.
931. *Coccotis zonistius* (Jordan).
Chattahoochee River
Luxilus zonistius Jordan, Proc. U. S. Nat. Mus., II, 1879, 239, Suwannee Creek, tributary of Chattahoochee River in northern Georgia.
- Genus 327. *LUXILUS* Rafinesque.
Luxilus Rafinesque, Ichth. Ohiensis, 1820, 47 (*L. chrysocephalus* Rafinesque = *Cyprinus cornutus* Mitchill).
Hypsilepis Baird, Amer. Jour. Sci. Arts, XVII, 1854, 359 (*Cyprinus cornutus* Mitchill); later written *Hypsilepis*.
932. *Luxilus cornutus* (Mitchill). *Shiner*; *Dace*; *Redfin*.
Entire region east of the Rocky Mountains excepting the south Atlantic States and Texas; very abundant; also Potomac River and tributaries; not found south of the James.
Cyprinus cornutus Mitchill, Amer. Month. Mag., I, July, 1817, 289, Wallkill River, N. Y.; preliminary notice, and II, 1818, 324, Westchester County, N. Y.
Cyprinus megalops Rafinesque, loc. cit., II; December, 1817, 121, Hudson River, above the falls.
Cyprinus melanurus Rafinesque, loc. cit., 121, Hudson River, above the falls.
?Luxilus interruptus Rafinesque, loc. cit., 49, Ohio River; may be *Notropis rubrifrons*.
Rutilus plargyrus Rafinesque, Ichth. Ohiensis, 1820, 50, Ohio River in Kentucky.
Rutilus compressus Rafinesque, loc. cit., 51, Monongahela River, etc., not certainly identifiable; may be *Notropis photogenis*.
Leuciscus vittatus DeKay, N. Y. Fauna: Fishes, 1842, 212, Chittenonga Creek, tributary of Mohawk River.
Aigyreus rubripinnis Heckel, Russegger's Reisen, 1843, 1040.
Leuciscus spinlingulus Cuvier and Valenciennes, Hist. Nat. Poiss., XVII, 1844, 239 (321), New Jersey; New Harmony, Ind.
Leuciscus obesus Storer, Proc. Bost. Soc. Nat. Hist., II, 1845, 48, Florence, Ala.
Plargyrus typicus Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 196; after Rafinesque.
Plargyrus bowmani Girard, loc. cit., 196, Sweetwater River, Nebr.
Plargyrus argentatus Girard, loc. cit., 212, James River, Va.
Alburnops plumbeolus Cope, loc. cit., XVI, 1864, 282, Saginaw River, Flint, Mich.
Hypsilepis cornutus cyaneus Cope, loc. cit., XIX, 1867, 160, Montreal River, Keweenaw, Mich.
Leuciscus frontalis Agassiz, Lake Superior, 1850, 368, Montreal River, eastern shore of Lake Superior.
Leuciscus gracilis Agassiz, loc. cit., 370, Lake Huron.
Hypsilepis cornutus gibbus Cope, Proc. Acad. Nat. Sci. Phila., XIX, 1867, 158, Monroe County, Mich.
933. *Luxilus cornutus isolepis* (Hubbs and Brown).
Oklahoma and Arkansas.
Notropis cornutus isolepis Hubbs and Brown, Proc. Okla. Acad. Sci., Pt. I, VI, Jan. 1, 1927, 129, Mountain Fork River, McCurtain County Okla.
934. *Luxilus cornutus chrysocephalus* (Rafinesque).
Ohio River and southward; the southern form of *cornutus*.
Luxilus chrysocephalus Rafinesque, Amer. Month. Mag., 1820, 47, Ohio River.
935. *Luxilus cerasinus* (Cope).
Roanoke River Basin, in mountain brooks.
Hypsilepis cornutus cerasinus Cope, Proc. Acad. Nat. Sci. Phila., XIX, 1867, 159, headwaters of Roanoke River, Va.

936. *Luxilus albeolus* (Jordan).
Roanoke, Tar, and Neuse Rivers.
Notropis megalops albeolus Jordan, Bull. U. S. Fish Com., VIII, 1888 (1891), 123, Roanoke River near Roanoke, Va
937. *Luxilus lacertosus* (Cope).
Headwaters of Tennessee River.
Hybopsis lacertosus Cope, Jour. Acad. Nat. Sci. Phila., VI, 1868, 232, Bear Creek, tributary of the Middle Fork of Holston River
- Genus 328. *EROGALA* Jordan and Brayton
Erogala Jordan and Brayton, Bull. U. S. Nat. Mus., XII, 1898, 20 (*Photogenis stigmaturus* Jordan).
938. *Erogala pyrrhomelas* (Cope).
North and South Carolina in the Santee Basin.
Photogenis pyrrhomelas Cope, Proc. Amer. Phil. Soc. Phila., XI, 1870, 463, Catawba River, N. C.
939. *Erogala formosa* (Putnam).
Southern Georgia and Alabama.
Alburnus formosus Putnam, Bull. Mus. Comp. Zool., I, 1863, 9, Mobile; not *Monana formosa* Girard
Leuciscus hypselopterus Gunther, Cat., VII, 1868, 255, Mobile; substitute for *formosus*, preoccupied in *Leuciscus* but not in *Erogala*.
Photogenis grandipinnis Jordan, Bull. U. S. Nat. Mus., X, 1877, 62, Flint River, Ga.
940. *Erogala whipplii* (Girard). *Silverfin; Lemonfin; Satinfin; Steel-colored minnow*.
Central and northern New York to Minnesota, northern Alabama, and Arkansas, in clear streams.
Cyprinella whippli Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 198, Sugarloaf Creek, tributary Poteau River, Ark.
Photogenis spilopterus Cope, Trans. Amer. Phil. Soc., XIII, 1866, 378, St. Joseph River, southwestern Michigan.
Hybopsis fretensis Cope, loc. cit., 382, Detroit, Mich; young of *C. whippli*, fide Hubbs.
941. *Erogala analostana* (Girard). *Silverfin, Satinfin, Lacefin; Shiner*.
Streams about Delaware and Chesapeake Bays; representing *Erogala whippli* east of the Alleghenies.
Cyprinella analostana Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 59, at Analostan Island, Washington, D. C.
942. *Erogala galactura* (Cope).
Ozark region to Cumberland, Tennessee, and Savannah Rivers; abundant in mountain streams.
Hypsilepis galacturus Cope, Proc. Acad. Nat. Sci. Phila., XIX, 1867, 160, Holston River, Va.
943. *Erogala stigmatura* (Jordan). *Spotted-tail minnow*.
Alabama Basin; very abundant.
Photogenis stigmaturus Jordan, Ann. Lyc. Nat. Hist. N. Y., XI, 1876, 337, Etowah River, Rome, Ga.
Cyprinella callura Jordan, Bull. U. S. Nat. Mus., X, 1877, 61, Black Warrior River, Ala
944. *Erogala camura* (Jordan and Meek).
Arkansas River and tributaries
Chiola camura Jordan and Meek, Proc. U. S. Nat. Mus., VII, 1884, 474, Arkansas River, Fort Lyon, Colo.
945. *Erogala nivea* (Cope).
Southern Virginia to South Carolina.
Hybopsis nveus Cope, Proc. Amer. Phil. Soc., XI, 1870, 460, Catawba River, N. C.
946. *Erogala chloristia* (Jordan and Brayton).
Santee River and tributaries.
Codoma chloristia Jordan and Brayton, Bull. U. S. Nat. Mus., XII, 1878, 21, tributary of Saluda River, Greenville, S. C.

947. *Erogala trichroistia* (Jordan and Gilbert).
Alabama River Basin.
Codoma trichroistia Jordan and Gilbert, Bull. U. S. Nat. Mus., XII,
1878, 50, Etowah River, etc., Rome, Ga.
948. *Erogala callistia* (Jordan).
Alabama River Basin
Photogenis callistius Jordan, Ann. Lyc. Nat. Hist. N. Y., XI, 1876, 337,
Etowah River, etc., Rome, Ga.
949. *Erogala cærulea* (Jordan).
Alabama River Basin.
Photogenis cæruleus Jordan, Ann. Lyc. Nat. Hist. N. Y., XI, 1876, 338,
Etowah River, Rome, Ga.
950. *Erogala eurystoma* (Jordan).
Chattahoochee River.
Photogenis eurystomus Jordan, Ann. Lyc. Nat. Hist. N. Y., XI, 1876,
356, Nancys Creek, tributary to Chattahoochee River, near Atlanta,
exclusive of the smaller specimens mentioned, which are *Notropis*
zonistius; not *Codoma eurystoma* Jordan.
Photogenis leucopus Jordan and Brayton, Bull. U. S. Nat. Mus., XII,
1878, 41, Chattahoochee River, Gainesville, Ga.
951. *Erogala cercostigma* (Cope).
Sandy streams tributary to the Gulf of Mexico, from Pearl River and
Red River to Rio Nueces; abundant.
Cyprinella cercostigma Cope, Proc. Acad. Nat. Sci. Phila., XIX, 1867,
157, Pearl River, Monticello, Miss.
Luxilus chackasavensis Hay, Proc. U. S. Nat. Mus., III, 1880, 506,
Chickasawha River, Enterprise, Miss.
952. *Erogala xænura* (Jordan).
Altamaha River Basin, Ga.
Minnilus xænurus Jordan, Proc. Acad. Nat. Sci. Phila., XXIX, 1877,
79, Ocmulgee River, Flat Shoals, Ga.
953. *Erogala notata* (Girard).
Streams of Texas from Austin westward.
Cyprinella notata Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 198,
Rio Seco, Tex.
954. *Erogala venusta* (Girard).
Streams of Texas.
Cyprinella venusta Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856,
198, Rio Sabinal, Tex.
955. *Erogala texana* (Girard).
Rivers of Texas from Trinity River to Rio Salado
Cyprinella texana Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 198,
Rio Salado and Turkey Creek, Tex.
- Genus 329. *CYPRINELLA* Girard.
Cyprinella Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 196 (*Leuciscus bubalinus* Baird and Girard).
956. *Cyprinella bubalina* (Baird and Girard).
Streams of Arkansas and westward; not common.
Leuciscus bubalinus Baird and Girard, Proc. Acad. Nat. Sci. Phila.,
VI, 1853, 391, Otter Creek, Ark.
Cyprinella umbrosa Girard, loc. cit., VIII, 1856, 197, Coal Creek,
tributary of South Fork Canadian River.
Cyprinella gunnisoni Girard, loc. cit., 197, Cottonwood Creek of the
Rio Grande, Colo.
Cyprinella beckwithi Girard, loc. cit., 197, Arkansas River, near Fort
Makee.
Cyprinella lepida Girard, loc. cit., 197, Rio Frio, Tex.
957. *Cyprinella ludibunda* Girard.
Rio Grande Basin.
Cyprinella ludibunda Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856,
199, locality now known to be Cottonwood Creek, Colo.

958. *Cyprinella macrostoma* Girard.
 Rio Grande region, northward perhaps to Kansas.
Cyprinella macrostoma Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 198, Devils River, Tex.
 ?*Cyprinella luxloldes* Girard, loc. cit., 198, San Pedro Creek, Tex.
 ?*Cyprinella lugubris* Girard, loc. cit., 199, Cottonwood Creek, Colo.
 ?*Notropis umbrifer* Hay, Proc. U. S. Nat. Mus., X, 1887, 245, Solomon River at Beloit and Saline River near Wakeeney, Kans.
959. *Cyprinella forlonensis* (Meek).
 Streams of Tamaulipas, Mexico.
Nototropis forlonensis Meek, Field Col. Mus., Zool., V, 1904, 70, fig. 20, Rio Forlon, Tamaulipas, Mexico.
960. *Cyprinella rubripinna* Garman.
 Tributaries of Lago del Muerto, Coahuila, Mexico.
Cyprinella rubripinna Garman, Bull. Mus. Comp. Zool., VIII, 1881, 91, Lago del Muerto; preoccupied.
Notropis garmani Jordan, Cat. Fish. N. Amer., 1885, 813; substitute for *rubripinna*; preoccupied in *Luxilus* but not in *Cyprinella*.
- Genus 330. **MONIANA** Girard.
Moniana Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 199 (*Leuciscus lutrensis* Baird and Girard); probably inseparable from *Cyprinella*.
961. *Moniana lutrensis* (Baird and Girard). *Redfin*.
 Southern Illinois to South Dakota, Kansas, and the Rio Grande; very abundant in clear brooks southward.
Leuciscus lutrensis Baird and Girard, Proc. Acad. Nat. Sci. Phila., VI, 1853, 391, Otter Creek, tributary of North Fork of Red River, Ark.
Cyprinella suavis Girard, loc. cit., VIII, 1856, 197, San Antonio, Tex.
Moniana leonina Girard, loc. cit., 199, Leon River, tributary to Rio San Antonio, Tex.
Moniana complanata Girard, loc. cit., 200, Brownsville, Tex.
Moniana latibilis Girard, loc. cit., 200, Hurah Creek, tributary of Rio Pecos.
Moniana pulchella Girard, loc. cit., 200, Sugar Loaf Creek, tributary to the Poteau River.
Moniana couchi Girard, loc. cit., 201, China, Nuevo Leon, Mexico.
Moniana rutila Girard, loc. cit., 201, Cadereita, Nuevo Leon, Mexico.
Moniana gracilis Girard, loc. cit., 201, Monterrey, Nuevo Leon, Mexico.
Moniana gibbosa Girard, loc. cit., 201, Brownsville, Tex.
Cyprinella billingsiana Cope, Hayden's Geol. Surv. Wyo., 1870, 439, St. Joseph, Mo.
Moniana jugalis Cope, loc. cit., 439, St. Joseph, Mo.
Hypsilepis iris Cope, Wheeler Surv., Zool., V, 1875, 653, Rio Grande, San Ildefonso, N. Mex.
Cyprinella forbesi Jordan, Bull. Ill. State Lab. Nat. Hist., I, 1878, 57, clear streams of southern Illinois.
Chiola montiregis Cope, Proc. Amer. Phil. Soc., XII, 1885, 168 (read Dec. 7, 1884), Monterey, Nuevo Leon, Mexico.
962. *Moniana formosa* Girard.
 Rio Mimbres, Chihuahua, Mexico.
Moniana formosa Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 201, Rio Mimbres, Chihuahua, Mexico.
963. *Moniana frigida* Girard.
 Rio Frio and tributaries of Rio San Antonio, Tex., and Lake Santa Maria, Chihuahua, Mexico.
Moniana frigida Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 200, Rio Frio, Tex.
964. *Moniana santamarie* (Evermann and Goldsborough).
 Rio Grande Basin in Mexico.
Notropis santamarie Evermann and Goldsborough, Bull., U. S. Fish Com., XXI, 1901 (1902), 147, fig. 2, Lake Santa Maria in Chihuahua, Mexico.

965. **Moniana proserpina** Girard.
Rio Grande region
Moniana proserpina Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 200, Devils River, Tex.
Moniana aurata Girard, loc. cit., 200, Piedra Pointe, N. Mex.
? *Moniana tristis* Girard, loc. cit., 1856, 201, locality unknown.
966. **Moniana boucardi** (Gunther). *Salmichi*.
Central Mexico.
Leuciscus boucardi Gunther, Cat., VII, 1868, 485, Cuernavaca, Mexico.
Graodius nigrotæniatus Gunther, loc. cit., 485, Atlisco, Mexico.
967. **Moniana robusta** (Meek).
Santa Rosalia and Jimenez, Mexico.
Notropis robustus Meek, Field Col. Mus., Zool., III, 1902, 82, Rio Conchos, Jimenez, Chihuahua, Mexico, figured as *Nototropis robustus*, in Field Col. Mus., Zool., V, 1904, 66.
968. **Moniana chihuahua** (Woolman).
Streams of Chihuahua, Mexico.
Notropis chihuahua Woolman, Amer. Nat., March, 1892, 260, Rio de los Conchos, Chihuahua, Mexico.
969. **Moniana callisema** (Jordan).
Ocmulgee River, Ga.
Episema callisema Jordan, Ann. Lyc. Nat. Hist. N. Y., XI, 1876, 363, South Fork of Ocmulgee River, Flat Shoals, Ga.
- Genus 331. **HUDSONIUS** Girard.
Hudsonius Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 210 (*Clupea hudsonia* Clinton)
970. **Hudsonius chamberlaini** (Evermann).
Atchafalaya River, La.
Notropis chamberlaini Evermann, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2800, Atchafalaya River, Melville, La.
971. **Hudsonius hudsonius** (De Witt Clinton). *Spawneater; Spot-tailed minnow; Shiner; Smelt*.
The Dakotas and Lake Superior to New York, and southward; abundant in the Great Lakes.
Clupea hudsonia De Witt Clinton, Ann. Lyc. Nat. Hist. N. Y., I, 1824, 49, Hudson River.
Hudsonius fluviatilis Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 210, Hudson River.
Luxilus selene Jordan, Bull. U. S. Nat. Mus., X, 1877, 60, Lake Superior, Bayfield, Wis.
Notropis scopiferus Eigenmann and Eigenmann, Amer. Nat., 1893, 153. Winnipeg, Brandon, Fort Qu'Appelle and Medicine Hat, Assiniboia.
972. **Hudsonius amarus** Girard. *Gudgeon; Spawneater; Silverfin; Shiner; Smelt shiner; Silvery minnow; Blue-lined minnow*.
Delaware and Potomac Rivers.
Hudsonius amarus Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 210, Potomac River at Washington.
Hybopsis phaenna Cope, loc. cit., 1864, 279, Delaware River, Trenton, N. J.
973. **Hudsonius saludanus** (Jordan and Brayton).
Coastwise streams from the James to the Ocmulgee.
Alburnops saludanus Jordan and Brayton, Bull. U. S. Nat. Mus., XII, 1878, 16, a tributary of Saluda River, Greenville, S. C.
Hudsonius euryopa Bean, Proc. U. S. Nat. Mus., II, 1879, 285, McBean Creek, tributary of Savannah River, Ga.
974. **Hudsonius aletes** Jordan and Evermann.
Southern Indiana.
Hudsonius aletes Jordan and Evermann, Proc. Calif. Acad. Sci., 4th ser., XVI, 1927 (Apr. 27), 502, Switz City Swamp, Green County, Ind.

Genus 332. HYBOPSIS Agassiz.

Hybopsis Agassiz, Amer. Jour. Sci. Arts, XVII, 1854 (*H. gracilis* Agassiz = *Rutilus amblops* Rafinesque?).

Alburnops Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 194 (*Hybopsis gracilis* Agassiz = *A. blennius* Girard).

Graodus Gunther, Cat., VII, 1868, 485 (*Graodus nigrotæniatus* Girard, specimen with pharyngeal teeth lost = *Alburnops blennius* Girard).

Chriope Jordan, Hayden's Geol. Surv. Terr., IV, 1878 (*Hybopsis bifrenatus* Cope).

Minellus Jordan, Man. Vert., ed. 5, 1888, 56 (*Hybopsis procne* Cope).

975. *Hybopsis gracilis* Agassiz.

Tennessee River.

Hybopsis gracilis Agassiz, Amer. Jour. Sci. Arts, XVII, 1854, 358, Huntsville, Ala.

976. *Hybopsis blennius* (Girard). *Straw-colored minnow*.

Ohio, Michigan, and New York to Tennessee, Dakota, and Kansas, thence southwestward to Texas.

?*Minnilus microstomus* Rafinesque, Ichth. Ohiensis, 1820, 47, Kentucky River; not certainly identifiable.

?*Rutilus amblops* Rafinesque, loc. cit., 51; not certainly identifiable.

Alburnops blennius Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 194, Arkansas River, near Fort Smith, Ark.

Hybognathus stramineus Cope, loc. cit., XVI, 1864, 283, Detroit River, Grosse Isle.

Hybopsis missouriensis Cope, Hayden's Geol. Surv. Wyo., 1870, 437, Missouri River, St. Joseph, Mo.

Notropis reticulatus Eigenmann and Eigenmann, Amer. Nat., 1893, 152, Fort Qu'Appelle, Assiniboia.

977. *Hybopsis winchelli* Girard.

Black Warrior River, Ala.

Hybopsis winchelli Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 211, Black Warrior River, Ala.

This species and the preceding may prove to be identical with *Hybopsis gracilis*. The synonymy of these little fishes is still unsettled.

978. *Hybopsis procne* (Cope). *Minnow; Minnie; Swallowminnow shiner*.

Delaware River and Cayuga Lake Basin southward in coastwise streams as far as the Neuse River, N. C.

Hybognathus procne Cope, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 283, Conestoga River, a tributary of the Susquehanna.

Hybopsis longiceps Cope, Jour. Acad. Nat. Sci. Phila., VI, 1868, 231, headwaters of James and Roanoke Rivers, Va.

979. *Hybopsis cummingsi* (Myers).

Streams near Wilmington, N. C.

Notropis cummingsi Myers, Amer. Mus. Novitates, No. 168, April 23, 1925, 1, fig. 1, upper Burnt Mill Creek, Wilmington, N. C.

980. *Hybopsis cayuga* (Meek).

Connecticut River, northern New York, and upper Mississippi Valley.

Notropis cayuga Meek, Ann. Acad. Sci. N. Y., IV, 1888, 305, Cayuga Lake, N. Y.

981. *Hybopsis atrocaudalis* (Evermann).

Rio Neches, Palestine, Tex., also in Rio Comal at New Braunfels, Tex.

Notropis cayuga atrocaudalis Evermann, Bull. U. S. Fish Com., XI, 1891 (1892), 76, Neches River, Palestine, Tex.

982. *Hybopsis keimi* (Fowler).

Allegheny River, western Pennsylvania.

Notropis keimi Fowler, Proc. Acad. Nat. Sci. Phila., LX, 1908, 533, Plate XXVII, tributary of Allegheny River, Port Allegheny, Pa.

983. *Hybopsis volucella* (Cope).

Michigan, Wisconsin, and northern Indiana.

Hybognathus volucellus Cope, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 283, Grosse Isle, Detroit River, Mich.

984. *Hybopsis phenacobius* (Forbes).
Streams of central Illinois.
Notropis phenacobius Forbes, Bull. Ill. Lab. Nat. Hist., II, 1885, 2, 137, Peoria Ill.
985. *Hybopsis spectrunculus* Cope.
Headwaters of Tennessee River in Tennessee, Virginia, and North Carolina.
Hybopsis spectrunculus Cope, Jour. Acad. Nat. Sci. Phila., VI, 1868, 231, tributary of Middle Fork of Holston River, Va.
986. *Hybopsis shumardi* (Girard).
Missouri region and southwestward.
Alburnops shumardi Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 194, Arkansas River, Fort Smith, Ark.
Alburnops illecebrosus Girard, loc. cit., 194, Arkansas River, Fort Smith, Ark.
987. *Hybopsis boops* (Gilbert). *Bigeye minnow*.
Maumee River, west to Iowa and Missouri.
Notropis boops Gilbert, Proc. U. S. Nat. Mus., VII, 1884, 201, Salt Creek, Brown County, Ind., and Flat Rock Creek, Decatur County, Ind.
988. *Hybopsis kanawha* (Jordan and Jenkins).
Tributaries of Kanawha River, southwestern Virginia.
Notropis kanawha Jordan and Jenkins, Proc. U. S. Nat. Mus., XI, 1888, 354, Plate 44, fig. 5, Reed Creek, Wytheville, Va.
989. *Hybopsis piptolepis* (Cope).
North Platte River.
Photogenus piptolepis Cope, Hayden's Geol. Surv. Wyo., 1870, 438, Red Cloud Creek, a tributary of North Platte River.
990. *Hybopsis gilberti* (Jordan and Meek).
Illinois to eastern Colorado.
Notropis gilberti Jordan and Meek, Proc. U. S. Nat. Mus., VIII, 1885, 4, Des Moines River and Village Creek, Ottumwa, Iowa; perhaps not distinct from *Hybopsis piptolepis*.
991. *Hybopsis horatii* (Cockerell).
Platte Basin.
Notropis horatii Cockerell, Science, XXXIV, No. 879, Nov. 3, 1911, 614, Julesburg, Colo.
992. *Hybopsis deliciosa* (Girard). *Straw-colored minnow*.
Michigan, and southwest to Arkansas.
? *Minnilus macrostomus* Rafinesque, Ichth. Ohiensis, 1820, 47, Ohio River; not certainly identifiable.
? *Hybopsis dorsalis* Agassiz, Amer. Jour. Sci. Arts., XVII, 1854, 358, Burlington, Iowa; unidentifiable.
Moniana deliciosa Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 199, Leon River, a tributary of the San Antonio River, Tex.
993. *Hybopsis deliciosa straminea* Cope. *Northern straw-colored minnow*.
Great Lakes region, mostly in small brooks, the northern form of *H. deliciosus*.
Hybopsis stramineus Cope, Trans. Amer. Phil. Soc., XIII, 1886, 381, Grosse Isle, Detroit River.
994. *Hybopsis callientis* (Jordan and Snyder).
Streams of central Mexico.
Notropis callientis Jordan and Snyder, Bull. U. S. Fish. Com., XIX, 1899 (1900), 122, fig. 4, Rio Verde at Aguas Calientes, Mexico.
995. *Hybopsis buchanani* (Meek).
Poteau River, Okla.
Notropis buchanani Meek, Bull. U. S. Fish. Com., XV, 1895 (1896), 342, Poteau River near Poteau, Ind. Ter.
996. *Hybopsis heterolepis* (Eigenmann and Eigenmann).
Notropis heterolepis Eigenmann and Eigenmann, Amer. Nat., 1893, 152, Cayuga Lake.
Notropis muskoka Meek, Field Col. Mus., Zool., I, 1898, 308, Muskoka Lake near Georgian Bay, Ontario.

997. *Hybopsis kendalli* (Evermann and Cockerell).
Cross Lake Thoroughfare, Me.
Notropis kendalli Evermann and Cockerell, Proc. Biol. Soc. Wash., XXII, Dec. 8, 1909, Cross Lake Thoroughfare, Me.
998. *Hybopsis ozarcanus* (Meek).
White River, Ark.
Notropis ozarcanus Meek, Bull., U. S. Fish Com., IX, 1889 (1891), 129, North Fork of White River, Ark.
999. *Hybopsis scylla* Cope.
Illinois River to western Kansas and Montana, abundant in the shallow sandy streams of the plains.
?Alburnus lineolatus Agassiz, in Putnam, Bull., Mus. Comp. Zool., I, 1863, 9, Osage River, Mo.; unidentifiable.
Hybopsis scylla Cope, Hayden's Geol. Surv. Wyo., 1870, 438, Red Cloud Creek, tributary of Platte River.
Chola chlora Jordan, Bull. Hayden's Geol. Surv. Terr., IV, 1878, 791, upper Missouri River.
1000. *Hybopsis longirostris* (Hay).
Chickasawha River, Miss., to Escambia River, Fla.
Alburnops longirostris Hay, Proc., U. S. Nat. Mus., III, 1880, 504, Chickasawha River at Enterprise, Miss.
1001. *Hybopsis nocomis* (Evermann).
Trinity, San Marcos, and Comal Rivers, Tex.
Notropis nocomis Evermann, Bull. U. S. Fish Com., XI, 1891 (1892), 78, Trinity River, Palestine, Tex., and San Marcos River, San Marcos, Tex.
1002. *Hybopsis ortenburgeri* (Hubbs)
Mountain Fork River, Okla.
Notropis ortenburgeri Hubbs, Proc. Okla. Acad. Sci., pt. 1, VI, Jan. 1, 1927, 127, Mountain Fork River, McCurtain County, Okla.
1003. *Hybopsis nux* (Evermann).
Neches and Trinity Rivers near Palestine, Tex.
Notropis nux Evermann, Bull. U. S. Fish Com., XI, 1891 (1892), 77, Neches River, Palestine, Tex.
1004. *Hybopsis simus* (Cope).
Rio Grande at San Ildefonso, N. Mex.
Alburnellus simus Cope, Wheeler Surv., V, Zool., 1875, 649, San Ildefonso, N. Mex.
1005. *Hybopsis sabineæ* (Jordan and Gilbert).
Sabine River, Tex.
Notropis sabineæ Jordan and Gilbert, Proc. U. S. Nat. Mus., IX, 1886, 15, Sabine River at Longview, Tex.
1006. *Hybopsis nitida* (Girard).
Tributaries of Rio San Juan at Cadereita, Nuevo Leon, Mexico.
Moniana nitida Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 201, Cadereita, Mexico; not *Alburnus nitidus* Kirtland, also a *Notropis* but not a *Hybopsis*.
Notropis braytoni Jordan and Evermann, Fishes North and Mid. Amer., 1896, 264, Cadereita, Mexico; substitute for *M. nitida* Girard, preoccupied.
- Subgenus **CHRIOPE** Jordan.
1007. *Hybopsis bifrenata* Cope. *Bridled minnow*; *Minnæ*.
Maine to Maryland.
Hybopsis bifrenatus Cope, Trans., Amer. Phil. Soc., XIII, 1867, Schuylkill River, Conshohocken, Pa.
1008. *Hybopsis maculata* (Hay).
Chickasawha River, Miss.
Hemitremia maculata Hay, Proc. U. S. Nat. Mus., III, 1880, 1505, Chickasawha River, Enterprise, Miss.

1009. *Hybopsis anogenus* (Forbes).
Western New York (Cayuga Lake) to northern Illinois.
Notropis anogenus Forbes, Bull. Ill. Lab. Nat. Hist., II, 1885, Art. 2, 138, Fox River, McHenry, Ill.
1010. *Hybopsis heterodon* (Cope).
New York to Michigan and Kansas; common.
Alburnops heterodon Cope, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 281, Lansing, Grosse Isle, Mich.
Notropis germanus Hay, Proc. U. S. Nat. Mus., X, 1887, 252, Smoky Hill River, Wallace, Kans.
1011. *Hybopsis heterodon richardsoni* (Hubbs and Greene).
Fox River System, tributary to Green Bay, Wis.
Notropis heterodon richardsoni Hubbs and Greene, Univ. Mich. Mus. Zool., Misc. Pub. 15, 1926, 39, Pl. III, fig. 1, Fox River, opposite Lock 25, Columbia County, Wis.
1012. *Hybopsis jordani* (Eigenmann and Eigenmann).
South Saskatchewan River, Medicine Hat, Assiniboia.
Notropis albeolus Eigenmann and Eigenmann, Amer. Nat., 1893, 152, Medicine Hat, Assiniboia; name preoccupied.
Notropis jordani Eigenmann and Eigenmann, loc. cit., 592, substitute for *Chriope albeolus*, preoccupied in *Notropis* but not in *Chriope*.
- Genus 333. **PLATYGOBIO** Gill.
Platygobio Gill, Trans. Amer. Phil. Soc., V, 1863, 178 (*Pogonichthys communis* Girard = *Cyprinus* (*Leuciscus*) *gracilis* Richardson).
1013. *Platygobio gracilis* (Richardson). *Flat-headed chub*.
East slope of the Rocky Mountains, from the Missouri and Yellowstone Rivers to the Saskatchewan; abundant in river channels as far south as Kansas City.
Cyprinus (*Leuciscus*) *gracilis* Richardson, Fauna Bor.-Amer., Fishes, 1836, 120, Saskatchewan River at Carleton House.
Coregonus angusticeps Cuvier and Valenciennes, Hist. Nat. Poiss., XXI, 1848, 389-390 (534), Saskatchewan River.
Pogonichthys communis Girard, Proc., Acad. Nat. Sci. Phila., VIII, 1856, 188, Yellowstone River, Fort Pierre, Nebr., etc.
Pogonichthys (*Platygobio*) *gulonellus* Cope, loc. cit., XVI, 1864, 277, near Bridgers Pass, Wyo.
1014. *Platygobio physignathus* (Cope).
Upper waters of Arkansas River; very abundant in the channels; the most common fish at Pueblo, Colo.
Ceratichthys physignathus Cope, Wheeler Surv., V, Zool., 1875 (1876), 651, Arkansas River, Pueblo, Colo.
1015. *Platygobio pallidus* Forbes.
One specimen from Ohio River at Cairo, Ill.
Platygobio pallidus Forbes, in Jordan and Gilbert, Synopsis, 1883, 220, Ohio River at Cairo, Ill.
- Genus 334. **COUESIUS** Jordan.
Couesius Jordan, Hayden's Geol. Surv. Terr., IV, 1878, 785 (*Nocomis milneri* Jordan = *Gobio plumbeus* Agassiz).
1016. *Couesius squamilentus* (Cope).
Henry Fork of Green River in southwestern Wyoming.
Ceratichthys squamilentus Cope, Hayden's Geol. Surv. Wyo., 1870, 442, Henry Fork of Green River, Wyo., Colorado Basin.
1017. *Couesius plumbeus* (Agassiz). *Chub minnow*; *Lake chub*; *Plumbeus minnow*; *Moose Lake minnow*.
Streams and lakes from Lake Superior east to the Adirondack region and New Brunswick; not very common except northward.
Gobio plumbeus Agassiz, Lake Superior, 1850, 366, Lake Superior.
Ceratichthys prosthemi Cope, Trans. Amer. Phil. Soc., XIII, 1867, Montreal River, Keweenaw Point, Lake Superior.
Nocomis milneri Jordan, Bull. U. S. Nat. Mus., X, 1877, 64, Lake Superior.

- 1018. *Couesius greeni* Jordan.**
 Stuart Lake, headwaters of Fraser River, British Columbia, and Lake Pend d'Oreille, Idaho.
Couesius greeni Jordan, Proc. U. S. Nat. Mus., XVI, 1893, 313, Stuarts Lake, British Columbia.
- 1019. *Couesius dissimilis* (Girard).**
 Upper Missouri and Black Hills region.
Leucosomus dissimilis Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 189, Milk River and Little Muddy River, Mont.
- 1020. *Couesius adustus* Woolman.**
 Rio de los Conchos, Chihuahua, Mexico
Couesius adustus Woolman, Bull. U. S. Fish Com., XIV, 1894, 57, Rio de los Conchos, Chihuahua, México.
- Genus 335. NOCOMIS Girard.**
Nocomis Girard, Proc. Acad. Nat. Sci. Phila., 1856, 190 (*N. nebrascensis* Girard = *Luxilus kentuckiensis* Rafinesque)
Ceratichthys Baird and Girard, Proc. Acad. Nat. Sci. Phila., VI, 1853, 391 (*C. vagilax* Baird and Girard; not of Baird and Girard, 1856); no description.
- 1021. *Nocomis kentuckiensis* (Rafinesque).** *Chub; Hornyhead; River chub; Jerker; Indian chub.*
 Pennsylvania to Wyoming and Alabama, on both sides of the Alleghenies; abundant in the larger streams
Luxilus kentuckiensis Rafinesque, Ichth. Ohienensis, 1820, 48, Ohio River.
 ?*Catostomus melanotus* Rafinesque, loc. cit., 58, Ohio River at the falls.
Semotilus biguttatus Kirtland, Bost. Jour. Nat. Hist., III, 1840, 344, Pl. V, Yellow Creek, Ohio.
Nocomis nebrascensis Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 190, Sweetwater River, Nebr.
Ceratichthys leptocephalus Girard, loc. cit., 213, Salem, N. C.
Nocomis bellicus Girard, loc. cit., 213, Black Warrior River.
Ceratichthys cyclotus Cope, loc. cit., XVI, 1864, 277, Grosse Isle, Waterford; Clinton River and Bruce, Mich.
Ceratichthys stigmaticus Cope, loc. cit., 1864, 278, Michigan.
- 1022. *Nocomis micropogon* (Cope).**
 Streams of Pennsylvania.
Ceratichthys micropogon Cope, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 277, Conestoga River near Lancaster, Pa
- Genus 336. YURIRIA Jordan and Evermann**
Yuriria Jordan and Evermann, Fishes North and Mid Amer., 1896, 321 (*Hudsonius altus* Jordan).
- 1023. *Yuriria alta* (Jordan).** *Pesca blanca.*
 Lakes and streams of Guanajuato, tributary to Rio Lerma, Mexico, in Pacific drainage.
Hudsonius altus Jordan, Proc. U. S. Nat. Mus., II, 1879, 301, Lake Tupatato, Guanajuato, Mexico.
- Genus 337. ERINEMUS Jordan**
Erinemus Jordan, Man. Vert., 1876, 279 (*Ceratichthys hyalinus* Cope).
- 1024. *Erinemus storerianus* (Kirtland).** *Storer's chub; Lake minnow.*
 Great Lakes and westward to Wyoming, Tennessee, and Arkansas; abundant in the larger streams and lakes, especially in Iowa
Rutilus storerianus Kirtland, Proc. Bost. Soc. Nat. Hist., I, 1842, 71, Lake Erie (name only); description given as *Leuciscus storerianus* in Bost. Jour. Nat. Hist., V, 1845, 30, Pl. I, fig. 2,
Gobio vernalis Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 189, Arkansas River, Fort Smith, Ark.
Ceratichthys lucens Jordan, Proc. U. S. Nat. Mus., II, 1879, 238, Falls of Ohio River near New Albany, Ind.
- 1025. *Erinemus hyalinus* (Cope).** *Silver chub.*
Ceratichthys hyalinus Cope, Jour. Acad. Nat. Sci. Phila., VI, 1868, 226, tributary of Holston River.

1026. *Erinemus labrosus* (Cope).
Basin of the Santee in North and South Carolina, common.
Ceraticthys labrosus Cope, Proc. Amer. Phil. Soc., XI, 1870, 458,
tributaries of Catawba River, McDowell and Burke Counties, N. C.
Ceraticthys zanemus Jordan and Brayton, Bull. U. S. Nat. Mus., XII,
1878, 24, Saluda River, Greenville, N. C.
1027. *Erinemus hypsinotus* (Cope).
Santee Basin, in North and South Carolina
Ceraticthys hypsinotus Cope, Proc. Amer. Phil. Soc. Phila., XI, 1870,
458, tributaries of Catawba River, McDowell County, N. C.
1028. *Erinemus rubrifrons* (Jordan).
Basin of the Altamaha, Ga.
Nocomis rubrifrons Jordan, Ann. Lyc. Nat. Hist. N. Y., XI, 1876,
330, Ocmulgee River, Flat Rock, Ga.
- Genus 338. **ERIMYSTAX** Jordan.
Erimystax Jordan, Rept. Geol. Surv. Ohio, IV, 1882, 858 (*Luxilus dis-*
similis Kirtland).
1029. *Erimystax dissimilis* (Kirtland). *Spotted shiner*.
Lake Erie to the headwaters of the Tennessee and west to Arkansas
and Iowa.
Luxilus dissimilis Kirtland, Bost. Jour. Nat. Hist., III, 1840, 341, pl.
4, fig. 2, Mahoning River, Ohio, and Lake Erie near Cleveland,
Ohio.
1030. *Erimystax watauga* (Jordan and Evermann).
Holston River, Va.; Watauga River, Tenn.; White River, Ark.;
Big Barren River, Ky.; and Tippecanoe River, Ind.
Hybopsis watauga Jordan and Evermann, Proc. U. S. Nat. Mus., XI,
1888, 355, Watauga River, Elizabethtown, Tenn.; North Fork of
Holston River, Saltville, Va.
- Genus 339. **ERIMONAX** Jordan.
Erimonax Jordan, Copeia, 1924, 52 (*Ceraticthys monacus* Cope).
1031. *Erimonax monacus* (Cope).
Tennessee Basin in the river channels.
Ceraticthys monacus Cope, Jour. Acad. Nat. Sci. Phila., VI, 1868, 227,
Holston River, Washington County, Va.
- Genus 340. **OREGONICHTHYS** Hubbs.
Oregonichthys Hubbs, Occ. Papers, Mus. Zool. Univ. Mich., 1927
(*Hybopsis crameri* Snyder).
1032. *Oregonichthys crameri* (Snyder).
Hybopsis crameri Snyder, Bull. U. S. Bur. Fish., XXVII, 1907, 181,
fig. 5, Willamette River at Oregon City, Oreg.
1033. *Oregonichthys cumingii* (Gunther).
California; only the type known.
Ceraticthys cumingi Gunther, Cat., VII, 1868, 177, California; type
locality uncertain.
- Genus 341. **MACRHYBOPSIS** Cockerell and Alliston.
Macrhybopsis Cockerell and Alliston, Proc. Biol. Soc. Wash., XXII,
1909, 162 (*Gobio gelidus* Girard).
1034. *Macrhybopsis æstivalis* (Girard).
Arkansas River to the Rio Grande; abundant in sandy river channels,
not in small brooks.
Gobio æstivalis Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 189,
Rio San Juan, near Cadereita, Nuevo Leon.
1035. *Macrhybopsis marconis* (Jordan and Gilbert).
Abundant in Rio San Marcos, San Marcos, Tex.; also known from the
Guadalupe River near San Marcos and the Rio Comal at New
Braunfels, Tex.
Hybopsis æstivalis marconis Jordan and Gilbert, Proc. U. S. Nat. Mus.,
IX, 1886, 22, Rio San Marcos, San Marcos, Tex.

1036. *Macrhybopsis sterletus* (Cope).
Rio Grande.
Ceraticthys sterletus Cope, Wheeler Surv., V, Zool., 1875 (1876), 652,
Rio Grande, at San Ildefonso, New Mexico.
1037. *Macrhybopsis gelida* (Girard).
Middle Missouri River Basin, from Wyoming to eastern Nebraska.
Gobio gelidus Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 188,
Milk River, Mont.
1038. *Macrhybopsis montana* (Meek).
Type supposed to be from the upper Missouri.
Hybopsis montanus Meek, Proc. U. S. Nat. Mus., VII, 1884, 526,
locality unknown but collected by Dr. F. V. Hayden, probably in
the upper Missouri Basin.
1039. *Macrhybopsis meeki* (Jordan and Evermann).
Missouri River at St. Joseph and elsewhere in the river channel.
Hybopsis meeki Jordan and Evermann, Fish. North and Mid. Amer.,
1896, 317, Missouri River at St. Joseph, Mo.
1040. *Macrhybopsis hyostoma* (Gilbert).
Indiana to Iowa, and south to the Alabama River.
Nocomis hyostomus Gilbert, Proc. U. S. Nat. Mus., VII, 1884, 203,
White River, Bedford, Ind.
- Genus 342. *EXTRARIUS* Jordan.
Extrarvus Jordan, Proc. Acad. Nat. Sci. Phila., LXX, 1918, 342 (*Hy-*
bopsis tetranemus Gilbert).
1041. *Extrarius tetranemus* (Gilbert).
Tributaries of Arkansas River in Kansas and Arkansas.
Hybopsis tetranemus Gilbert, Bull. Washburn Lab. Nat. Hist., 1886,
208, Elm and Spring Creeks, Medicine Lodge, Kans.
- Genus 343. *RHINICHTHYS* Agassiz.
Argyreus Heckel, Russeger's Reisen, 1842 (*Cyprinus atronasus* Mitchill;
name preoccupied).
Rhinichthys Agassiz, Lake Superior, 1850, 353 (*Cyprinus atronasus*
Mitchill).
1042. *Rhinichthys cataractæ* (Cuvier and Valenciennes). *Long-nosed dace*;
Black-nosed dace; *Black minnow*; *Niagara gudgeon*.
New England to Virginia and Wisconsin
Gobio cataractæ Cuvier and Valenciennes, Hist. Nat. Poiss., XVI, 1842,
240 (315), pl. 483, Niagara Falls.
Leuciscus nasutus Ayres, Jour. Bost. Soc. Nat. Hist., IV, 1843, 299,
West Hartford, Conn.
Rhinichthys marmoratus Agassiz, Lake Superior, 1850, 354, Pl. II, figs.
1 and 2, Sault Ste. Marie, Lake Superior.
1043. *Rhinichthys bowersi* Goldsborough and Clark.
Rhinichthys bowersi Goldsborough and Clark, Bull. U. S. Bur. Fish.,
XXVII, 1907, 36, Dry Fork, Herman, W. Va.
1044. *Rhinichthys dulcis* (Girard).
Upper Missouri, Platte, Arkansas, Rio Grande, and Colorado Rivers;
Columbia River; Utah Basin; and coastwise streams of Washington
and Oregon.
Argyreus dulcis Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 185,
Sweetwater River, Nebr.
Rhinichthys maxillosus Cope, loc. cit., XVI, 1864, 278, Kansas
Rhinichthys transmontanus Cope, Amer. Nat., 1879, 441, tributaries of
Rio Grande in Colorado and New Mexico.
Rhinichthys ocella Garman, Science Observer, III, 1881, 59, northeastern
Wyoming and Montana.
Rhinichthys luteus Garman, Bull. Mus. Comp. Zool., VIII, 1881, 87,
Bear River, Ogden, Utah.

1045. *Rhinichthys atronasmus* (Mitchill) *Dace; Black-nosed dace; Brook minnow; Striped dace*
New England to Minnesota, northern Alabama, and Virginia, very abundant in clear brooks and mountain streams.
Cyprinus atronasmus Mitchill, Trans Lit. Phil. Soc. N. Y., I, 1815, 460, Wallkill River, brooks of New York.
Cyprinus vittatus Rafinesque, Amer. Month. Mag., II, 1817, 121, upper Hudson River.
1046. *Rhinichthys croceus* (Storer)
Tennessee Basin; abundant in clear brooks.
Leuciscus croceus Storer, Proc. Bost. Soc. Nat. Hist., 1845, 48, Florence, Ala.
Rhinichthys obtusus Agassiz, Amer. Jour. Sci. Arts, XVII, 1854, 357, Huntsville, Ala.
Rhinichthys badius Garman, Science Observer, III, 1881, 60, Clinch River, Tenn.
1047. *Rhinichthys lunatus* Cope.
Lakes and brooks of Michigan, Indiana, Wisconsin, and Minnesota, and in Rainy River.
Rhinichthys lunatus Cope, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 278, Grosse Isle, Mich.
Rhinichthys arenatus Garman, Science Observer, 1881, 62, Sand Hill River, Minn.
1048. *Rhinichthys meleagris* Agassiz.
Illinois and Iowa.
Rhinichthys meleagris Agassiz, Amer. Jour. Sci. Arts, XVII, 1854, 357, Burlington, Iowa.
1049. *Rhinichthys simus* Garman.
Coahuila, Mexico.
Rhinichthys simus Garman, Science Observer, III, 1881, 61, Coahuila, Mexico.
- Genus 344. AGOSIA Girard.
Agosia Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 186 (*Agosia chrysogaster* Girard)
Zophendum Jordan and Gilbert, Synopsis, 1883, 155 (*Hybognathus siderius* Cope = *Agosia chrysogaster* Girard).
1050. *Agosia chrysogaster* Girard.
Tributaries of the Gila River; common in the mountain brooks.
Agosia chrysogaster Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 187, Rio Santa Cruz, Sonora.
Agosia metallica Girard, loc. cit., 1856, 187, Rio San Pedro, Ariz.
Hyborhynchus (*Hybognathus*) *siderius* Cope, Wheeler Surv., V, Zool., 1875, 670, Pl. XXXI, figs. 6 and 6a, Camp Lowell, Ariz.
- Genus 345. APOCOPE Cope.
Apocope Cope, Hayden's Geol. Surv. Mont., etc., 1871 (1872), 472 (*A. carringtoni* Cope).
Eritrema Cope, Wheeler's Surv., V, Zool., 1876, 645 (*Apocope henshawi* Cope).
1051. *Apocope nubila* (Girard).
Basin of the Columbia River from western Idaho, below Shoshone Falls of Snake River, to the coast, and in coastwise streams from Washington southward into Oregon.
Argyreus nubilus Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 186, Fort Steilacoom, Puget Sound.
1052. *Apocope robusta* (Rutter).
Upper Sacramento Basin.
Agosia robusta Rutter, Bull. U. S. Fish Com., XXII, 1902, 148, Prosser Creek, Calif.

1053. *Apocope carringtonii* Cope.
Upper Snake River Basin to Heart Lake in Yellowstone Park, thence extending southward in the Great Basin and the Coast Ranges; southeastern Oregon.
Apocope carringtonii Cope, Hayden's Geol. Surv. Mont., 1871, 472, Warm Springs, Utah.
Apocope vulnerata Cope, loc. cit., 473, Logan, Utah.
Tigoma rhynchthyoides Cope, loc. cit., 473, Logan, Utah.
Rhynchthys henshawi Cope, Proc. Amer. Phil. Soc., XIV, 1874, 133, Provo, Utah.
Agosia novemradiata Cope, Proc. Acad. Nat. Sci. Phila., XXV, 1883, 141, Weber River at Echo, Utah.
1054. *Apocope oscula* (Girard).
Lower Colorado and Gila Rivers, not rare.
Argyreus osculus Girard, Proc. Acad. Nat. Sci. Phila., 1856, 186, Babocomori Creek, a tributary of the Rio San Pedro, Ariz.
Argyreus notabilis Girard, loc. cit., 1856, 186, Rio Santa Cruz, Sonora, a tributary of the Rio San Pedro, Ariz.
Ceratichthys ventricosus Cope, Proc. Amer. Phil. Soc., XXV, 1874, 136, Ariz.
1055. *Apocope couesii* Yarrow.
Colorado River Basin.
Apocope couesii Yarrow, Field and Forest, 1876, and Wheeler Surv., V, Zool., 1875, 648, Camp Apache, Ariz.
1056. *Apocope yarrowi* (Jordan and Evermann).
Streams of Colorado in the Colorado River Basin.
Agosia yarrowi Jordan and Evermann, Bull. U. S. Fish Com., IX, 1889 (1891), 28, Tomichi Creek and Gunnison River, Gunnison, Colo.
1057. *Apocope adobe* (Jordan and Evermann).
Sevier River, Utah; locally abundant.
Agosia adobe Jordan and Evermann, Bull. U. S. Fish Com., IX, 1889 (1891), Sevier River, Juab, Utah.
1058. *Apocope klamathensis* (Evermann and Meek).
Agosia klamathensis Evermann and Meek, Bull. U. S. Fish Com., XVII, 1897 (1898), 75, 9, fig. 5, Pelican Bay, Upper Klamath Lake, Oreg.
1059. *Apocope nevadensis* (Gilbert).
Warm springs in the deserts of southwestern Nevada; Ash Meadows, Indian Creek, and Vegas Creek, Nev.
Rhynchthys (Apocope) nevadensis Gilbert, Death Valley Exped., 1893, 230, pl. 6, fig. 1, Ash Meadows, Amargosa Desert, Nev.
1060. *Apocope velifera* (Gilbert).
Pahranagat Valley, southwestern Nevada.
Rhynchthys (Apocope) velifer Gilbert, Death Valley Exped., 1893, 229, pl. 6, fig. 2, Pahranagat Valley, Nev.
1061. *Apocope falcata* (Eigenmann and Eigenmann).
Columbia River Basin; locally abundant; Boise River at Caldwell, Idaho; Payette River at Payette, Idaho; Columbia River at Pasco and Umatilla; and Mill Creek at Walla Walla.
Agosia falcata Eigenmann and Eigenmann, Amer. Nat., XXVII, Feb. 4, 1893, 153, Boise River, Caldwell, Idaho.
1062. *Apocope umatilla* (Gilbert and Evermann).
Columbia River at Umatilla, Oreg., and Payette and Salmon Rivers, Idaho.
Agosia umatilla Gilbert and Evermann, Bull. U. S. Fish Com., XIV, 1894, 192, pl. 9, fig. 2, Columbia River, Umatilla, Oreg.
- Genus 346. *ERICYMBA* Cope.
Ercymba Cope, Proc. Acad. Nat. Sci. Phila., XVII, 1865, 88 (*E. buccata* Cope).

1063. *Ericymba buccata* Cope. *Silver-mouthed minnow*.
Michigan and western Pennsylvania to Kansas and southward to western Florida
Ericymba buccata Cope, Proc., Acad. Nat. Sci. Phila., XVII, 1865, 88,
Kiskiminitas River, a tributary of the Monongahela, western Pennsylvania.
- Genus 347. **PHENACOBIVS** Cope.
Phenacobius Cope, Proc., Acad. Nat. Sci. Phila., XIX, 1867, 96 (*P. teretulus* Cope).
Sarcidium Cope, Hayden's Geol. Surv. Wyo., 1870, 363 (*S. scopiferum* Cope).
1064. *Phenacobius teretulus* Cope.
Kanawha River, W. Va.
Phenacobius teretulus Cope, Proc. Acad. Nat. Sci. Phila., XIX, 1867, 96, Kanawha River, Eggleston Springs, W Va.
1065. *Phenacobius mirabilis* (Girard). *Sucker-mouthed minnow*.
Illinois to Arkansas.
Exoglossum mirabile Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 191, Arkansas River, Fort Smith, Ark.
1066. *Phenacobius scopifer* (Cope).
Illinois to the Rio Grande.
Sarcidium scopiferum Cope, Hayden's Geol. Surv. Wyo., 1870 (1871), 440, Missouri River near St. Joseph, Mo
Phenacobius teretulus liosternus Nelson, Bull. Ill. Lab. Nat. Hist., I, 1876, 46, brooks of McLean County, Ill.
1067. *Phenacobius uranops* Cope.
Upper Tennessee Basin.
Phenacobius uranops Cope, Proc. Acad. Nat. Sci. Phila., XIX, 1867, 96, Holston River, Saltville, Va.
1068. *Phenacobius catostomus* Jordan.
Alabama River Basin.
Phenacobius catostomus Jordan, Ann. Lyc. Nat. Hist. N. Y., XI, 1876, 332, Silver Creek, Etowah River, Rome, Ga.
- Genus 348. **FALCULARIUS** Jordan and Snyder.
Falcula Jordan and Snyder, Bull. U. S. Fish Com., XIX, 1899, 124 (*Falcula chapalæ* Jordan and Snyder); name preoccupied.
Falcularius Jordan, Amer. Nat., XXXVII, 1903, 360 (*Falcula chapalæ* Jordan and Snyder).
1069. *Falicularius chapalæ* (Jordan and Snyder).
Lake Chapala, Mexico
Falcula chapalæ Jordan and Snyder, Bull. U. S. Fish Com., XIX, 1899 (1901), 124, Lake Chapala at Ocotlan, Mexico.
- Genus 349. **XYSTROSUS** Jordan and Snyder.
Xystrosus Jordan and Snyder, Bull. U. S. Fish Com., XIX, 1899 (1901), 123 (*X. popoche* Jordan and Snyder).
1070. *Xystrosus popoche* Jordan and Snyder.
Basin of the Rio Lerma, Mexico.
Xystrosus popoche Jordan and Snyder, Bull. U. S. Fish Com., XIX, 1899 (1901), 123, Lake Chapala at Ocotlan, Jalisco, Mexico.
- Genus 350. **EVARRA** Woolman.
Evarra Woolman, Bull. U. S. Fish Com., XIV, 1894, 64 (*E. eigenmanni* Woolman).
1071. *Evarra eigenmanni* Woolman.
Central Mexico.
Evarra eigenmanni Woolman, Bull. U. S. Fish Com., XIV, 1894, 64, City of Mexico.
1072. *Evarra tlahuacensis* Meek.
Chalco Lake, Tlahuac, Mexico.
Evarra tlahuacensis Meek, Field Col. Mus., Zool., III, 1902, 85, Pl. XVIII, lower figure, Chalco Lake, Tlahuac, Mexico.

Genus 351. TIAROGA Girard.

Tiaroga Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 204 (*T. cobitis* Girard).

1073. *Tiaroga cobitis* Girard.

Gila Basin, Ariz.

Tiaroga cobitis Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 204, Rio San Pedro, Ariz.

Genus 352. AZTECULA Jordan and Evermann.

Azteca Jordan and Evermann, Fishes North and Mid. Amer., 1896, 254 (*Notropis aztecus* Woolman); name preoccupied.

Aztecula Jordan and Evermann, loc. cit., 1898, 2799, (*Notropis aztecus* Woolman=*Codoma vittata* Girard).

1074. *Aztecula vittata* (Girard).

Valley of Mexico and headwaters of the Rio Balsas at Pueblo, Mexico.

Codoma vittata Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 195,

Valley of Mexico.

Notropis aztecus Woolman, Bull. U. S. Fish Com., XIV, 1894, 63, pl. 2, canals about City of Mexico

1075. *Aztecula mexicana* Meek.

Basin of Rio San Juan on the Mexican plateau.

Aztecula mexicana Meek, Field Col. Mus., Zool., III, 1902, 81, figured; loc. cit., V, 1904, 62, fig. 15; San Juan del Rio, Mexico.

1076. *Aztecula lermæ* (Evermann and Goldsborough).

Basin of Rio Lerma.

Notropis lermæ Evermann and Goldsborough, Bull. U. S. Fish. Com., XXI, 1901 (1902), 147, fig. 3, Lake Lerma, at Lerma, Mexico.

Genus 353. CODOMA Girard.

Codoma Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 194 (*C. ornata* Girard).

1077. *Codoma ornata* Girard.

Headwaters of the Rio Nezquitil and Rio Nazas in Durango to upper tributaries of the Rio Yaqui and Rio Conchos in Chihuahua, Mexico.

Codoma ornata Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 195, Chihuahua River, Mexico.

1078. *Codoma topeka* (Gilbert).

Western Iowa and eastern South Dakota to Kansas; locally abundant in the prairie streams.

Notropis topeka Gilbert, Bull. Washburn Lab. Nat. Hist., I, 1884, 13, tributary of Kansas River, Topeka, Kans.

Notropis æneolus Hay, Proc. U. S. Nat. Mus., X, 1887, 245, Solomon River, Wakeeney, Kans.

Genus 354. HYBOGNATHUS Agassiz.

Hybognathus Agassiz, Amer. Jour. Sci. Arts, XIX, 1855, 223 (*H. nuchalis* Agassiz).

1079. *Hybognathus nuchalis* Agassiz. Gudgeon; Smelt; Silvery minnow; Smelt minnow.

Clear streams from the upper Missouri southward to Georgia and Texas, west of the Alleghenies.

Hybognathus nuchalis Agassiz, Amer. Jour. Sci. Arts, XIX, 1855, 224, Quincy, Ill.

Hybognathus evansi Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 182, Fort Pierre, Nebr.

Hybognathus placitus Girard, loc. cit., 1856, 182, sluices of the Arkansas River.

1080. *Hybognathus regius* Girard. Gudgeon; Silvery minnow.

Streams New Jersey to Virginia, east of the Alleghenies.

Hybognathus regius Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 209, Potomac River.

Hybognathus osmerinus Cope, Proc. Amer. Phil. Soc., XI, 1870, 466, Raritan River, N. J.

1081. *Hybognathus argyritis* Girard.
Upper Missouri region and Red River of the North
Hybognathus argyritis Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 182, Milk River, Mont
1082. *Hybognathus hayi* Jordan.
Lower Mississippi Valley and neighboring rivers in Mississippi.
Hybognathus hayi Jordan, Proc. U. S. Nat. Mus., VII, 1884, 548, Pearl River, Jackson, Miss.; this and three preceding are all very close to *Hybognathus nuchalis*.
- Genus 355. *DIONDA* Girard.
Dionda Girard, Proc. Acad. Nat. Sci. Phila., VIII, 176 (*D. episcopa* Girard)
Algoma Girard, loc. cit., 180 (*A. amara* Girard).
1083. *Dionda episcopa* Girard.
Southern Texas and northern Mexico; south to the Rio Mezquital in Durango and the Rio San Juan in Nuevo Leon.
Dionda episcopa Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 177, headwaters of Pecos River and Comanche Spring, tributary to the Rio Grande, Tex.
Dionda tetensis Girard, loc. cit., 177, Nueces River, Tex.
Dionda papalis Girard, loc. cit., 178, Delaware Creek, a tributary of Pecos River, Tex.
Dionda argentosa Girard, loc. cit., 178, San Felipe Creek and Devils River, tributaries of Rio Grande.
Dionda chrysitis Girard, loc. cit., 178, Live Oak Creek, a tributary of the Pecos.
Dionda couchi Girard, loc. cit., 178, Guajuco, Monterey, and Cadereita, Nuevo Leon
Hybognathus flavipinnis Cope, Bull. U. S. Nat. Mus., XVII, 1880, 36, Johnsons Fork of Llano River, Tex.
Hybognathus nigrotaxiata Cope, loc. cit., 37, Wallace Creek, a tributary of Medina River, Tex.
Hybognathus (Dionda) punctifer Garman, Bull. Mus. Comp. Zool., VIII, 1881, 89, Parras and spring near Saltillo, Mexico
Hybognathus civilis Cope, Trans. Amer. Phil. Soc., 1884, 167, Monterey, Nuevo Leon
1084. *Dionda serena* Girard.
Sabinal River, Tex.
Dionda serena Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 177, Sabinal River, Tex.
1085. *Dionda amara* (Girard)
Near Fort Brown, Tex.
Algoma amara Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 180, Lagoon near Fort Brown, Tex.
1086. *Dionda melanops* Girard.
Coahuila, Mexico.
Dionda melanops Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 178, Buena Vista, Coahuila.
1087. *Dionda nubila* (Forbes).
Western Illinois, west to Wyoming and southwest to the Ozark region.
Alburnops nubilus Forbes, Bull. Ill. Lab. Nat. Hist., I, 1878, 56, Rock River, Ogle County, Ill.
1088. *Dionda plumbea* Girard.
Tributaries of Arkansas River, in Oklahoma.
Dionda plumbea Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 178, Canadian River, Okla.
Dionda spadicea Girard, loc. cit., 178, Fort Smith, Ark.
Dionda grisea Girard, Pac. R. R. Surv., X, 1858, 230, Pl. LII, figs. 6-10, near Choctaw Agency.
- Genus 356. *CERATICHTHYS* Baird and Girard.
Ceraticthys Baird and Girard, Proc., Acad. Nat. Sci. Phila., VI, 1853, 391 (*C. vigilax*; misprinted *Ceraticthys*, not of Girard, 1856).
Cliola Girard, loc. cit., VIII, 1856, 192 (*Ceraticthys vigilax* Baird and Girard).
Hypargyrus Forbes, in Gilbert, Proc. U. S. Nat. Mus., VII, 1884, 200 (*Hybopsis tuditanus* Cope).

1089. *Ceratichthys vigilax* Baird and Girard. *Bullhead minnow; Fathead minnow.*

Ohio to Georgia, Iowa, and Texas.

Ceratichthys vigilax Baird and Girard, Proc., Acad. Nat. Sci. Phila., VI, 1853, 391, Otter Creek, North fork of Red River, Ark.

Chola velox Girard, loc. cit., VIII, 1856, 192, San Pedro Creek and *Chola vivax*, Rio Leon, tributaries of Rio San Antonio, Tex.

Hybopsis tudilanus Cope, Trans., Amer. Phil. Soc., XIII, 1866, 381, Detroit, Mich.

Alburnops taurocephalus Hay, Proc. U. S. Nat. Mus., 1880, 503, Chickasawha River, Miss.

1090. *Ceratichthys smithi* (Evermann and Cox).

Southern South Dakota; known only from Prairie Creek near Scotland.

Chola smithi Evermann and Cox, Rept. U. S. Fish Com., XIX, 1894 (1896), 400, Prairie Creek, Scotland, S. Dak.

Genus 357. HYBORHYNCHUS Agassiz.

Hyborhynchus Agassiz, Amer. Jour. Sci. Arts, XIX, 1855, 223 (*Minnulus notatus* Rafinesque)

1091. *Hyborhynchus notatus* (Rafinesque). *Blunt-nosed minnow; Spotted minnow.*

Quebec to Delaware; Kentucky, Alabama, Arkansas, and northward to the Dakotas; generally very abundant in small streams west of the Alleghenies.

Minnulus notatus Rafinesque, Ichth. Ohiensis, 1820, 47, Ohio River.

Hyborhynchus perspicuus Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 179, Arkansas River, Fort Smith.

?*Hyborhynchus tenellus* Girard, loc. cit., 179, Choctaw Agency

Hyborhynchus puniceus Girard, loc. cit., 179, Antelope Creek, Canadian River.

Hybopsis hæmaturus Cope, Trans. Amer. Phil. Soc., XIII, 1866, 382, St. Joseph River, Michigan City, Ind.

?*Hyborhynchus superciliosus* Cope, Jour. Acad. Nat. Sci. Phila., VI, 1868, 234, Kanawha River.

Genus 358. PIMEPHALES Rafinesque. *Fatheads.*

Pimephales Rafinesque, Ichth. Ohiensis, 1820, 52 (*P. promelas* Rafinesque).

Coliscus Cope, Hayden's Geol. Surv. Wyo., 1872, 437 (*Coliscus parietalis* Cope; young of *Pimephales promelas*).

Spinicephalus LeSueur, Bull. Sci. Philom., VIII, 1896, 14, pl. 26 (*S. fibulatus* LeSueur = *Pimephales promelas* Rafinesque).

1092. *Pimephales promelas* Rafinesque. *Fathead minnow; Blackhead minnow.*

Lake Champlain to Kentucky, Dakota, and the Rio Grande; abundant in sluggish brooks, especially in the Missouri Basin.

Pimephales promelas Rafinesque, Ichth. Ohiensis, 1820, 53, pond near Lexington, Ky.

Pimephales maculosus Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 180, sluices of the Arkansas River, Fort Makee, Ark.

Pimephales fasciatus Girard, loc. cit., 180, Yellowstone River.

Plargyrus melanocephalus Abbott, loc. cit., XII, 1860, 325, Lake Whittlesey, Minn.

Pimephales mulesi Cope, loc. cit., XVI, 1864, 282, Grosse Isle, Detroit River, Mich.

Pimephales agassizii Cope, Trans. Amer. Phil. Soc., XIII, 1866, 394, tributary of Ohio River, near Richmond, Ind.

Coliscus parietalis Cope, Hayden's Geol. Surv. Wyo., 1871, 437, St. Joseph, Mo.; young.

Hyborhynchus nigrellus Cope, Wheeler's Surv., V, Zool., 1875, 671, Arkansas River.

Spinicephalus fibulatus LeSueur, Bull. Soc. Philom., VIII, 1896, pl. 26; no locality.

1093. *Pimephales confertus* (Girard).

Tributaries of the Rio Grande.

Hyborhynchus confertus Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 179, Hurrah Creek, a tributary of the Pecos River, Tex.

1094. *Pimephales anuli* Kendall.

Thoroughfare between Mud and Grass Lakes, Me.

Pimephales anuli Kendall, Bull. U. S. Fish Com., XXII, 1902, 257, between Mud Lake and Grass Lake, Me.

Genus 359. *COCHLOGNATHUS* Baird and Girard.

Cochlognathus Baird and Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 158 (*C. ornatus* Baird and Girard).

1095. *Cochlognathus ornatus* Baird and Girard.

Rio Grande Basin.

Cochlognathus ornatus Baird and Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 158, Brownsville, Tex.

1096. *Cochlognathus biguttatus* Cope.

Trinity River, Tex.

Cochlognathus biguttatus Cope, Bull. U. S. Nat. Mus., XVII, 1880, 37, Trinity River, Fort Worth, Tex.

Genus 360. *EXOGLOSSUM* Rafinesque.

Exoglossum Rafinesque, Jour. Acad. Nat. Sci. Phila., I, 1818, 419

(*E. lesueurianum* Rafinesque = *Cyprinus maxillingua* LeSueur).

Maxillingua Rafinesque, loc. cit., 421 (*Cyprinus maxillingua* LeSueur).

1097. *Exoglossum maxillingua* (LeSueur). *Cut-lips; Nigger chub; Nigger dick; Butter chub; Niggerfish.*

Lake Ontario, St. Lawrence River, Lake Champlain, Hudson River, and Cayuga Lake, and southward to Virginia; abundant in the basins of the Susquehanna, Hudson, Potomac, James, Roanoke, and Kanawha, but not widely distributed.

Cyprinus maxillingua LeSueur. Jour. Acad. Nat. Sci. Phila., I, 1817, 85, Pipe Creek, Md.

Exoglossum annulatum Rafinesque, loc. cit., 1818, 421, Hudson River.

Exoglossum nigrescens Rafinesque, loc. cit., 422, Hudson River.

Exoglossum lesurianum Rafinesque, loc. cit., 420; after LeSueur.

Genus 361. *CAMPOSTOMA* Agassiz. *Stonerollers.*

Campostoma Agassiz, Amer. Jour. Sci. Arts, XIX, 1855, 218 (*Rutilus anomalus* Rafinesque).

1098. *Campostoma anomalum* (Rafinesque). *Stoneroller; Greased chub; Blue sucker; Rotgut minnow; Mammy; Doughbelly; Steel-backed chub.*

Central New York to Tennessee, Wyoming, and Texas.

Rutilus anomalus Rafinesque, Ichth. Ohienensis, 1820, 52, Licking River, Ky.

Exoglossum spinicephalum Cuvier and Valenciennes, Hist. Nat. Poiss., XVII, 1844, 363 (489), Wabash River.

Leuciscus prolixus Storer, Proc. Bost. Soc. Nat. Hist., II, 1845, 48, Alabama.

Exoglossum dubium Kirtland, Bost. Jour. Nat. Hist., V, 1845, 272, Yellow Creek, Ohio.

Chondrostoma pullum Agassiz, Amer. Jour. Sci. Arts, XVII, 1854, 357, Burlington, Iowa.

Campostoma nasutum Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 176, Cadereita, and near Monterey, Nuevo Leon, Mexico.

Campostoma callipteryx Cope, loc. cit., XVI, 1864, 284, Flint River, Mich.

Campostoma mormyrus Cope, loc. cit., 284, Bruce, Macomb County, Mich.

Campostoma gobionium Cope, loc. cit., 284, Bruce, Macomb County, and Grosse Isle, Mich.

Campostoma hippops Cope, loc. cit., 284, Platte River, Nebr.

Campostoma brevis Haseman, Proc. Ind. Acad. Sci., 1905 (1906), 161, Wabash River near Wabash, Ind.

1099. *Campostoma ornatum* Girard.

Chihuahua River, and tributaries of the Rio Grande in Mexico.

Campostoma ornatum Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 176, Chihuahua, Mexico.

1100. *Campostoma pricei* Jordan and Thoburn.
Rio Yaqui, Sonora and neighboring streams, tributary to the Gulf of California.
Campostoma pricei Jordan and Thoburn, in Jordan and Evermann, Fishes North and Mid. Amer., 1896, 203, Rucker Canyon, Chiricahua Mountains, Ariz., very near *C. ornatum*.
1101. *Campostoma formosulum* Girard.
Texas; San Antonio River to the Rio Grande.
Campostoma formosulum Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 176, Rio Sabinal, near San Antonio, Tex.

Family 91. MEDIDÆ

- Genus 362. *LEPIDOMEDA* Cope.
Lepidomeda Cope, Proc. Amer. Phil. Soc. Phila., XIV, 1874, 131 (*L. vittata* Cope).
1102. *Lepidomeda vittata* Cope.
Known only from the Colorado Chiquito River, Ariz., and from Pahrn-agat Valley, Nev.
Lepidomeda vittata Cope, Proc. Amer. Phil. Soc. Phila., XIV, 1874, 131, Rio Colorado Chiquito, Ariz.
1103. *Lepidomeda jarrovii* Cope.
Colorado Chiquito River, Ariz.; also in southern Nevada, in springs in the desert.
Lepidomeda jarrovi Cope, Proc. Amer. Phil. Soc. Phila., XIV, 1874, 132, Rio Colorado Chiquito, Ariz.
- Genus 363. *MEDA* Girard.
Meda Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 191 (*M. fulgida* Girard).
1104. *Meda fulgida* Girard.
Rio Gila Basin, Ariz.
Meda fulgida Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 192, Rio San Pedro, Ariz.
- Genus 364. *PLAGOPTERUS* Cope.
Plagopterus Cope, Proc. Amer. Phil. Soc., XIV, 1874, 130 (*P. argentsimus* Cope).
1105. *Plagopterus argentissimus* Cope.
Colorado Basin in western Colorado; Fort Yuma.
Plagopterus argentissimus Cope, Proc. Amer. Phil. Soc., XIV, 1874, 130, San Luis Valley, Colo.

Order Y. NEMATOGNATHI.²⁸

Family 92. ARIIDÆ. Sea catfishes

- Genus 365. *BAGRE* Oken. *Gafftopsail catfishes*.
Les Bagres Cuvier, Règne Anim., II, 1817 (*Silurus bagre* L.).
Bagre Oken, Isis, 1817, 1183 (after les Bagres of Cuvier; type by tautonymy *Silurus bagre* Linnæus).
Breviceps Swainson, Nat. Hist. Anim., I, 1838, 328 (*Breviceps filamentosus* Swainson); name preoccupied.
Felchithys Swainson, loc. cit., II, 1839, 305 (*Breviceps filamentosus* Swainson); substitute for *Breviceps*.
Ailurichthys Baird and Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 26 (*Silurus marinus* Mitchell).
Ælurichthys, corrected spelling.

²⁸ Until recently all members of this order have been usually included in the single family *Siluridæ*. As properly restricted the *Siluridæ* is a small group of large river fishes of Europe and Asia, resembling our larger catfishes, but without adipose fin, the anal joined to the caudal.

1106. *Bagre marina* (Mitchill). *Sea catfish; Gafftopsail*.
Cape Cod to Texas
Silurus marinus Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 433,
New York.
In the investigation of Linnæan types at Upsala Dr. Einar Lönnberg
has found an example of this species labeled *Silurus felis*. On the
strength of this discovery this species has been called *Felichthys felis*.
But Linnæus's own description shows clearly that this was not his
type, which must have been our common sea cat here called *Galeichthys*
felis.
1107. *Bagre isthmensis* (Regan).
Atlantic coast of Panama; Colon.
Elurichthys isthmensis Regan, Biol. Centrali-Amer., 1907, 117, Tab.
XV, fig. 1, and Tab. XIX, fig. 1, Atlantic coast of Panama, Colon.
1108. *Bagre panamensis* (Gill).
Mazatlan to Panama.
Elurichthys panamensis Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863,
172, Panama.
1109. *Bagre pinnimaculatus* (Steindachner).
Mazatlan to Panama.
Elurichthys pinnimaculatus Steindachner, Ichth. Beitr., IV, 1875, 15,
Panama, Altata, Costa Rica.
1110. *Bagre eydouxi* (Cuvier and Valenciennes).
Guayaquil.
Galeichthys eydouxi Cuvier and Valenciennes, Hist. Nat. Poiss., XV,
1840, 43, Guayaquil.
1111. *Bagre scutatus* (Regan).
Coast of Panama and Ecuador.
Elurichthys scutatus Regan, Biol. Centrali-Amer., 1907, 116, Tab.
XV, fig. 2, and Tab. XIX, fig. 2, Pacific coast of Panama.
1112. *Bagre bahiensis* (Castelnau).
Mexico to Bahia.
Galeichthys bahiensis Castelnau, Anim. Amér. Sud, 1855, 37, Bahia.
Elurichthys longispinus Gunther, Cat., V, 1864, 178; Mexico; South
America.
- Genus 366. *SCIADÉICHTHYS* Bleeker.
Sciadeichthys Bleeker, Act. Soc. Sci. Indo-Neerl., V, 1858, 99 (*Sciades*
pictus Müller and Troschel); not *Sciadeichthys* Bleeker, 1863.
1113. *Sciadeichthys troscheli* (Gill).
Gulf of California to Panama.
Sciades troscheli Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 171,
Panama.
Arius brandti Steindachner, Ichth. Beitr., IV, 1876, 21, Altata, Panama.
1114. *Sciadeichthys emphysetus* (Müller and Troschel).
Surinam.
Bagrus (Sciades) emphysetus Müller and Troschel, Horæ Ichth., III,
1849, 8, Surinam.
1115. *Sciadeichthys proops* (Cuvier and Valenciennes).
West Indies from Porto Rico to Surinam and south to Pernambuco.
Bagrus proops Cuvier and Valenciennes, Hist. Nat. Poiss., XIV, 1839,
457, Guiana; Porto Rico.
- Genus 367. *SELENASPIS* Bleeker.
Selenaspis Bleeker, Vissch. Ind. Archipel., I, 1858, 62 (*Silurus hertzbergi*
Bloch).
Leptarius Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 170 (*L. dowi*
Gill).
1116. *Selenaspis dowii* (Gill).
Panama to Guayaquil.
Leptarius dowi Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 170, Panama.
Arius alatus Steindachner, Ichth. Beitr., IV, 1876, 19, Panama.

Genus 368. NETUMA Bleeker.

Netuma Bleeker, Vissch. Ind. Archipel., I, 1858, 62 (*N. thalassina*, Bleeker=*N. nasuta* Bleeker).

Gurtinga Bleeker, loc. cit., 62 (*Arius commersoni* Bleeker).

Notarius Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 171 (*Arius grandicassis* Cuvier and Valenciennes).

1117. Netuma planiceps (Steindachner).

Gulf of California to Panama; not rare.

Arius planiceps Steindachner, Ichth. Beitr., IV, 1876, 26, Altata, Panama.

1118. Netuma kessleri (Steindachner).

Gulf of California to Panama, not rare.

Arius kessleri Steindachner, Ichth. Beitr., IV, 1876, 24, Altata, Panama.

1119. Netuma insculpta (Jordan and Gilbert).

Panama.

Arius insculptus Jordan and Gilbert, Bull. U. S. Fish Com., II, 1882 (1883), 41, Panama.

1120. Netuma platypogon (Gunther).

Gulf of California to Peru; generally common.

Arius platypogon Günther, Cat., V, 1864, 147, San Jose de Guatemala.

1121. Netuma oscula (Jordan and Gilbert).

Panama, a single example known

Arius osculus Jordan and Gilbert, Bull. U. S. Fish Com., II, 1882 (1883), 46, Panama.

1122. Netuma elattura (Jordan and Gilbert).

Panama; scarce.

Arius elatturus Jordan and Gilbert, Bull. U. S. Fish Com., II, 1882 (1883), 45, Panama.

Genus 369. GALEICHTHYS Cuvier and Valenciennes. *Sea catfish.*

Galeichthys Cuvier and Valenciennes, Hist. Nat. Poiss., XV, 1840, 28 (*G. feliceps* Cuvier and Valenciennes).

Hexanematichthys Bleeker, Act. Soc. Sci. Indo-Neerl., V, 1858, 2 (*Bagrus sundracus* Bleeker).

Cephalocassis Bleeker, Vissch. Ind. Archipel., I, 1858, 62 (*Arius truncatus* Cuvier and Valenciennes).

Arropsis Gill, Suppl. Proc. Acad. Nat. Sci. Phila., XIII, 1861, 56 (*Arius milberti*=*Silurus belis* L.).

Hemiaris Bleeker, Nederl. Tijdschr. Dierk., I, 1863, 7 (*Cephalocassis stormi* Bleeker).

Subgenus GALEICHTHYS²⁹ Cuvier and Valenciennes.**1123. Galeichthys lentiginosus** (Eigenmann and Eigenmann).

Panama.

Tachisurus lentiginosus Eigenmann and Eigenmann, Proc. Calif. Acad. Sci., 2d ser., I, 1888, 139, Panama.

1124. Galeichthys peruvianus Lütken.

Pacific coast of Mexico to Peru.

Galeichthys peruvianus Lütken, Vid. Med. Naturh. Foren. Kjøbenhavn, 1874, 204, Callao, Peru.

Subgenus HEXANEMATICTHYS³⁰ Bleeker.**1125. Galeichthys felis** (Linnæus). *Sea cat.*

Cape Cod to Texas.

Silurus felis Linnæus, Syst. Nat., ed. XII, 1766, 503, Charleston, S. C.

Arius milberti Cuvier and Valenciennes, Hist. Nat. Poiss., XV, 1840,

74, New York; Charleston, S. C.

?*Arius equestris* Baird and Girard, Proc. Acad. Nat. Sci. Phila., VII,

1855, 26, Indianola, Tex.

1126. Galeichthys guentheri Regan.

Gulf of Mexico.

Galeichthys guentheri Regan, Biol. Centrali-Amer., 1907, 124, Tab. XVI, fig. 1, and Tab. XIX, fig. 3. Gulf of Mexico.

²⁹ Top of head covered with soft skin, hiding the rugose plates.

³⁰ Top of head with thin skin which does not hide the rugose plates.

1127. *Galeichthys surinamensis* (Bleeker).
Surinam.
Hexanematichthys surinamensis Bleeker, Versl. Akad. Amsterdam, 1862, 380, Surinam.
1128. *Galeichthys seemani* (Gunther).
Panama.
Arius seemani Gunther, Cat., V, 1864, 147, "Central America."
1129. *Galeichthys gilberti* Jordan and Williams.
Coast of Sinaloa
Galeichthys gilberti Jordan and Williams, Proc. Calif. Acad. Sci., 2d ser., V, 1895, 395, pl. 26, Mazatlan, Mexico.
1130. *Galeichthys jordani* (Eigenmann and Eigenmann).
Panama.
Tachisurus jordani Eigenmann and Eigenmann, Proc. Calif. Acad. Sci., 2d ser., I, 1888, 142, Panama.
1131. *Galeichthys cærulescens* (Gunther).
West coast of Guatemala.
Arius cærulescens Gunther, Cat., V, 1864, 149, Rio Huamuchal, Guatemala.
1132. *Galeichthys azureus* Jordan and Williams.
Mazatlan, Mexico.
Galeichthys azureus Jordan and Williams, Proc. Calif. Acad. Sci., 2d ser., IV, 1895, 398, pl. 27, Mazatlan, Mexico.
1133. *Galeichthys xenauchen* Gilbert.
Panama.
Galeichthys xenauchen Gilbert, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2777, Panama.
1134. *Galeichthys guatemalensis* (Gunther).
Mazatlan to Central America.
Arius guatemalensis Gunther, Cat., V, 1864, 145, Guatemala; Chiapas.
1135. *Galeichthys assimilis* (Günther).
Atlantic coast of Central America, ascending streams.
Arius assimilis Gunther, Cat., V, 1864, 146, Lake Yzabel, Guatemala.
1136. *Galeichthys dasycephalus* (Günther).
Panama (wrongly ascribed to the Hawaiian Islands).
Arius dasycephalus Gunther, Cat., V, 1864, 157, Oahu; apparently an error.
1137. *Galeichthys longicephalus* (Eigenmann and Eigenmann).
Panama.
Tachisurus longicephalus Eigenmann and Eigenmann, Proc. Calif. Acad. Sci., 2d ser., I, 1888, 143, Panama.
- Genus 370. *ARIUS* Cuvier and Valenciennes.
? *Tachisurus* Lacépède, Hist. Nat. Poiss., V, 1803, 151 (*T. chinensis* Lacépède; from a Chinese drawing, not identifiable as to species; may be a fresh-water fish or a *Netuma*).
Arius Cuvier and Valenciennes, Hist. Nat. Poiss., XV, 1840, 52 (*A. arius* Cuvier and Valenciennes, type by autonomy).
Ariodes Muller and Troschel, Horæ Ichth., III, 1849, 9 (*Arius arenarius* Müller and Troschel).
Pseudarius Bleeker, Nederl. Tijdschr. Dierk., I, 1862, 91 (*Arius arvus* Cuvier and Valenciennes).
1138. *Arius spixii* (Agassiz).
Trinidad to Brazil.
Pimelodus albidus Spix, in Agassiz, Gen. Spec. Pisc. Brasil., 1829, 19, equatorial Brazil; name preoccupied.
Pimelodus spixii Agassiz, loc. cit., 19; after Spix.
Arius arenatus Cuvier and Valenciennes, Hist. Nat. Poiss., XV, 1840, 106, Cayenne.
Arius laticeps Gunther, Cat., V, 1864, 171, British Guiana, Trinidad.
1139. *Arius melanopus* Gunther.
Pacific coast of Central America.
Arius melanopus Günther, Cat., V, 1864, 172, Rio Motagua.

1140. *Arius furthi* Steindachner.
Panama.
Arius furthi Steindachner, Ichth. Beitr., IV, 1876, 29, Panama.
1141. *Arius steindachneri* (Gilbert and Starks).
Pacific coast of Panama.
Tachysurus steindachneri Gilbert and Starks, Mem. Calif. Acad. Sci., IV, 1904, 29, Pl. V, fig. 9, Panama Bay.
1142. *Arius evermanni* (Gilbert and Starks).
Panama.
Tachysurus evermanni Gilbert and Starks, Mem. Calif. Acad. Sci., IV, 1904, 32, Pl. V, fig. 10, Panama.
1143. *Arius liropus* (Bristol).
Coast of Sonora, Mexico.
Tachysurus liropus Susan Brown Bristol, in Gilbert, Proc. U. S. Nat. Mus., XIX, 1896 (Feb. 5, 1897), 438, San Juan Lagoon, near mouth of Rio Ahome, Sonora, Mexico.
1144. *Arius emmelane* (Gilbert).
Panama.
Tachysurus emmelane Gilbert, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2785, Panama.
1145. *Arius taylori* Hildebrand. *Bagre*.
Coast of El Salvador
Arius taylori Hildebrand, Bull. U. S. Bur. Fish., XLI, 1925, 250, fig. 10, Rio Lempa, San Marcos.
1146. *Arius multiradiatus* Gunther.
Streams of Isthmus of Panama, Rio Bayano, Panama.
Arius multiradiatus Günther, Cat., V, 1864, 173, Rio Bayano, Panama.
- Genus 371. *CATHOROPS* Jordan and Gilbert.
Cathorops Jordan and Gilbert, Bull. U. S. Fish Com., II, 1882, 54
(*Arius hypophthalmus* Steindachner).
1147. *Cathorops hypophthalma* (Steindachner).
Panama; rather scarce.
Arius hypophthalmus Steindachner, Ichth. Beitr., IV, 1875, 31, Pl. X, Panama.
1148. *Cathorops gulosa* (Eigenmann and Eigenmann).
Panama.
Tachysurus gulosus Eigenmann and Eigenmann, Proc. Calif. Acad. Sci., 2d. ser., I, 1888, 146, Panama.

Family 93. AMEIURIDÆ. Horned pouts; Channel cats

Genus 372. *ISTLARIUS* Jordan and Snyder.

Istlarius Jordan and Snyder, Bull. U. S. Fish Com., XIX, 1899, 118
(*I. balsanus* Jordan and Snyder).

1149. *Istlarius balsanus* Jordan and Snyder.

Balsas River Basin, Pacific slope of Mexico.

Istlarius balsanus Jordan and Snyder, Bull. U. S. Fish Com., XIX, 1899, 118; tributary of Rio de las Balsas at Puente de Ixtla, Guerrero, Mexico (Pacific drainage).

Genus 373. *ICTALURUS* Rafinesque. Channel cats.

Ictalurus Rafinesque, Ichth. Ohiensis, 1820, 61 (*Silurus punctatus* Rafinesque).

Ellnops Rafinesque, loc. cit., 62 (*Pimelodus maculatus* Rafinesque).

Synechoglanis Gill, Ann. Lyc. Nat. Hist. N. Y., VI, 1858, 39 (*S. beadlei* Gill = *Ictalurus furcatus* Rafinesque).

Ichthyælus, corrected spelling.

1150. *Ictalurus furcatus* (Cuvier and Valenciennes). *Blue cat; Great fork-tailed cat; Mississippi cat, Poisson bleu.*
Pimelodus furcatus LeSueur, in Cuvier and Valenciennes, Hist. Nat. Poiss., IX, 1840, 136, New Orleans.
Pimelodus affinis Baird and Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 26, Rio Grande.
Ameiurus ponderosus Bean, Proc. U. S. Nat. Mus., II, 1879, 286, St. Louis.
Ictalurus robustus Jordan, Bull. U. S. Nat. Mus., X, 1877, 76, Cairo, Ill.
1151. *Ictalurus anguilla* Evermann and Kendall. *Eel cat, Willow cat; Fulton cat*
 Mississippi River, occasionally as far north as Louisville, Ky., Muscatine and Fairport, Iowa, where it is known as the "Fulton cat."
Ictalurus anguilla Evermann and Kendall, Bull. U. S. Fish Com., XVII, 1897 (Feb. 9, 1898), 125, pl. 6, fig. 1, Atchafalaya River, La.
1152. *Ictalurus punctatus* (Rafinesque). *Channel cat; White cat; Fiddler.*
 Rivers of the Great Lakes region, the Mississippi Valley, and streams tributary to the Gulf of Mexico.
Silurus punctatus Rafinesque, Amer. Month. Mag., 1818, 359, Ohio River.
Pimelodus caudafurcatus LeSueur, Mem. Mus., V, 1819, 152, Wabash River; Mississippi River
Pimelodus maculatus, pallidus, argentinus, argyrus, with varieties *erythroptera, marginatus, lateralis, leucoptera* Rafinesque, Quarterly Jour. Sci., London, 1820, and Ichth. Ohiensis, 1820, 62, etc., Ohio River.
Pimelodus furcifer Cuvier and Valenciennes, Hist. Nat. Poiss., XV, 1840, 139, Surinam, by error.
Pimelodus gracilis Hough, Ann. Rept. Regent's, Albany, 1852, 26, Somerville, N. Y.
Pimelodus vulpes Girard, Proc. Acad. Nat. Sci. Phila., X, 1858, 170, rivers of Texas.
Synechoglanis beadler Gill, Ann. Lyc. Nat. Hist. N. Y., VII, 1859, 40, St. Catherine's, Ont.
Pimelodus houghi Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 159, Somerville; Ogdensburg; Foxburg, Pa.
Pimelodus megalops Girard, loc. cit., 161, Black Warrior River, Bigsby River, Ala.
Pimelodus graciosus Girard, loc. cit., 161, Prairie Mer Rouge, La.
Pimelodus hammondi and *notatus* Abbott, loc. cit., XII, 1860, 568, 569, Fort Riley, Kans.
Ictalurus simpsoni Gill, Proc. Bost. Soc. Nat. Hist., VIII, 1862, 43, Platte River.
1153. *Ictalurus meridionalis* (Gunther).
 Rio Usumacinta, Guatemala.
Amiurus meridionalis Gunther, Cat., V, 1864, 102, and in Trans. Zool. Soc. Lond., 1868, 473, Rio Usumacinta, Guatemala.
- Genus 374. **HAUSTOR** Jordan and Evermann.
Haustor Jordan and Evermann, Fishes North and Mid. Amer., 1896, 137 (*Gadus lacustris* Walbaum = *Pimelodus nigricans* LeSueur).
Vallarius Rutter, Proc. Calif. Acad. Sci., VI, Ser. 2, June 23, 1896, 258 (*V. pricei* Rutter).
1154. *Haustor lacustris* (Walbaum).
 Saskatchewan River and the Great Lakes.
Gadus lacustris Walbaum, Arctid. Pisc., 1792, 144, Arctic America; based on the mathemeg or land cod of Pennant.
Pimelodus nigricans LeSueur, Mem. Mus., V, 1819, 153, Lake Erie, Lake Ontario.
Pimelodus borealis Richardson, Fauna Bor.-Amer., III, 1836, 135, Pine Island Lake.
1155. *Haustor okeechobeensis* (Heilprin).
 Florida.
Ictalurus okeechobeensis Heilprin, Trans. Wagner Inst. Sci. Phila., I, 1887, pl. 18, Kissimee River, Fla.
Ameiurus lacustris okeechobeensis Fowler, Proc. Acad. Nat. Sci. Phila., LI, 1899, 480; same type.

1156. **Haustor catus** (Linnaeus). *White cat; Channel cat of the Potomac.*
Silurus catus Linnaeus, Syst. Nat., ed. X, 1758, 305, based on the catfish of Catesby (*Bagre secundæ speciei marcgraveri affinis*), which is a rude figure of the adult or "lophius" form of this species; northern part of America.
Pimelodus albidus LeSueur, Mem. Mus., V, 1819, 148, Delaware River.
Pimelodus lynx Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 160, Potomac River.
Amiurus nweiventris Cope, Proc. Amer. Phil. Soc., XI, 1870, 486, Neuse River.
Ictalurus macaskeyi and *I. keviniskii* Stauffer, Hist. Lancaster County, Pa., 1869, 578, Lancaster County, Pa.
1157. **Haustor lophius** (Cope). *Big-mouthed cat.*
 Potomac River.
Amiurus lophius Cope, Proc. Amer. Phil. Soc., XI, 1870, 486, Potomac River; not observed elsewhere. Known by its very wide flat head; apparently not the adult of *Ameiurus catus*, as has been supposed.
1158. **Haustor lupus** (Girard).
 Rio Neuces and Rio Pecos, Tex.
Pimelodus lupus Girard, Pac. R. R. Surv., X, 1858, Pt. 4, Fishes, 211, Rio Pecos, Tex.
1159. **Haustor pricei** (Rutter).
 Southern Arizona.
Villarius pricei Rutter, Proc., Calif. Acad. Sci., 2d ser., VI, 1896, 257, San Bernardino Creek, a tributary of the Yaqui River, southern Arizona.
1160. **Haustor dugesi** (Bean).
 Rio Turbio, Guanajuato, Mexico, west of the Sierra Madre
Ameiurus dugesi Bean, Proc. U. S. Nat. Mus., II, 1879, 304, Rio Turbio, Guanajuato, Mexico.
- Genus 375. **AMEIURUS** Rafinesque. *Horned pout.*
Ameiurus Rafinesque, Ichth. Ohiensis, 1820, 65 (*Silurus cupreus* Rafinesque = *Pimelodus natalis* LeSueur).
Amiurus, corrected spelling
1161. **Ameiurus erebennus** Jordan.
 Coast swamps and black water streams from New Jersey to Florida.
Ameiurus erebennus Jordan, Bull. U. S. Nat. Mus., X, 1877, 85, St. John's River, Fla.
1162. **Ameiurus natalis** (LeSueur). *Yellow cat.*
 Great Lakes region to Virginia and southward
Pimelodus natalis LeSueur, Mem. Mus., 1819, 154, North America
Silurus lvidus and var. *fuscus* Rafinesque, Quarterly Jour. Sci. Lond., 1820, 48, Ohio River.
Silurus cupreus Rafinesque, loc. cit., 1820, 51, Ohio River.
Pimelodus cupreus Rafinesque, Ichth. Ohiensis, 1820, 65, Ohio River.
Pimelodus cænosus Richardson, Fauna Bor.-Amer., III, 1836, 132, Lake Huron.
Pimelodus felinus et *antoniensis* Girard, Pac. R. R. Surv., X, 1858, 209, Canadian and San Antonio Rivers, Tex.
Pimelodus cupresoides Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 159, Aux Plaines, Ill.
Ameiurus natalis analis Jordan, Bull. U. S. Nat. Mus., X, 1877, 81, Arkansas River.
Ameiurus bolli Cope, Bull. U. S. Nat. Mus., XX, 1880, 35, Little Wichita River, Tex.
1163. **Ameiurus vulgaris** (Thompson).
 Vermont to Minnesota and Illinois, chiefly northward. A doubtful species.
Pimelodus vulgaris Thompson, Hist. Vermont, 1842, 138, Lake Champlain.
P[imelodus] dekeyi Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 160, Oswego, N. Y.
Pimelodus ailurus Girard, Pac. R. R. Surv., X, 1858, 210, Lake Amelia, Minn.

1164. *Ameiurus nebulosus* (LeSueur). *Horned pout; Common bullhead; Small catfish; Schuylkill cat; Sacramento cat.*
Great Lakes, Ohio Valley, eastward to Maine, southwestward to Texas and southwestward to Florida; introduced about 1877 into the Humboldt, Sacramento, San Joaquin, and Gila Rivers, where it is now excessively abundant
Pimelodus nebulosus LeSueur, Mem. Mus., V, 1819, 149, Lake Ontario.
Pimelodus atrarius DeKay, N. Y. Fauna: Fishes, 1842, 185, Wappingers Creek, Dutchess County, N. Y.
Pimelodus felis Agassiz, Lake Superior, 1850, 281, Lake Superior.
Pimelodus vulpeculus Girard, Proc., Acad. Nat. Sci. Phila., XI, 1859, 160, Charleston, S. C.
Pimelodus hoyi Girard, loc. cit., 159, Racine, Wis.
Ameiurus missillensis Cope, Proc., Amer. Phil. Soc., 1870, 486, Missillion Creek, Del.
1165. *Ameiurus nebulosus catulus* (Girard).
Streams of Texas; abundant.
Pimelodus catulus Girard, Pac. R. R. Surv., X, 1858, Pt. 4, Fishes, 208, Fort Smith, Ark.
1166. *Ameiurus prosthistius* Cope.
New Jersey.
Ameiurus prosthistius Cope, Proc. Acad. Nat. Sci. Phila., XXXV, 1883, 133, Batsto River, N. J.
1167. *Ameiurus platycephalus* (Girard). *Mud cat; Brown cat.*
Streams of the Carolinas and eastern Georgia, Cape Fear to the Chatahoochee.
Pimelodus platycephalus Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 161, Anderson, S. C.
Ameiurus brunneus Jordan, Ann. Lyc. Nat. Hist. N. Y., XI, 1877, 366, Ocmulgee River, Flat Shoals, Ga.; the young of *platycephalus*.
1168. *Ameiurus brachyacanthus* Cope.
Streams of Texas.
Ameiurus brachyacanthus Cope, Bull. U. S. Nat. Mus., XVII, 1880, 35, Wallace Creek, Bandera County, Tex.
1169. *Ameiurus melas* (Rafinesque). *Black bullhead; Small catfish.*
Northern New York (Genesee River) to Kansas and Texas; common especially west of the Mississippi.
Silurus melas Rafinesque, Quarterly Jour. Sci. Lond., 1820, 51, Ohio River.
Silurus xanthocephalus Rafinesque, loc. cit., 1820, 51, Ohio River.
Pimelodus pullus DeKay, N. Y. Fauna: Fishes, 1842, 184, Lake Pleasant, Janet, N. Y.
Pimelodus confinis Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 159, Racine, Wis.
Ameiurus obesus Gill, Proc. Bost. Soc. Nat. Hist., 1862, 45, Nebraska.
Ameiurus cragini Gilbert, Bull., Washburn Lab. Nat. Hist., I, 1884, 10, Garden City, Kans.
1170. *Ameiurus marmoratus* (Holbrook).
Lowland streams and swamps from southwestern Indiana (Switz City) southward and eastward to Florida.
Pimelodus marmoratus Holbrook, Jour. Acad. Nat. Sci. Phila., III, 1855, 54, South Carolina.
- Genus 376. *GRONIAS* Cope. *Blind catfishes.*
Gronias Cope, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 231 (*G. nigrilabris* Cope).
1171. *Gronias nigrilabris* Cope.
Cave streams tributary to Conestoga River in eastern Pennsylvania
Gronias nigrilabris Cope, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 231, Conestoga River, Pa.

Genus 377. OPLADELUS Rafinesque.

?*Plodictis* Rafinesque, Jour. Phys., 1819, 422 (*P. limosa* Rafinesque, after Audubon; drawing of an imaginary catfish).

Leptops Rafinesque, Ichth. Ohiensis, 1820, 64 (*Pimelodus viscosus* Rafinesque = *Silurus olivaris* Rafinesque).

Opladelus Rafinesque, loc. cit., 64 (*Pimelodus nebulosus* Rafinesque = *Silurus olivaris* Rafinesque); name chosen by first reviser.

Iuctis Rafinesque, loc. cit., 66 (*Pimelodus nebulosus* Rafinesque = *Silurus olivaris* Rafinesque).

Hopladelus and *Pelodichthys*, corrected spelling.

1172. *Opladelus olivaris* (Rafinesque). *Mud cat*; *Yellow cat*; *Bashaw*; *Russian cat*; "Hoosier" at New Boston, Ill.; *Goujon*.

Silurus olivaris Rafinesque, Amer. Month. Mag., 1818, 355. Ohio River. *Silurus nebulosus*, *viscosus* and *limosus* Rafinesque, Quarterly Jour. Sci. Lond., 1820, 50, Ohio River.

Pylodictis limosus Rafinesque, Ichth. Ohiensis, 1820, 67, Ohio and Mississippi Rivers; based on a drawing by Audubon.

Pimelodus punctulatus Cuvier and Valenciennes, Hist. Nat. Poiss., XV, 1840, 134, New Harmony, Ind.

Pimelodus zeneus Cuvier and Valenciennes, loc. cit., 135, New Orleans.

Genus 378. NOTURUS Rafinesque. Stone cats.

Noturus Rafinesque, Amer. Month. Mag., November, 1818, 41 (*N. flavus* Rafinesque).

1173. *Noturus flavus* Rafinesque. *Stone cat*.

Great Lakes region, westward to Montana and Wyoming and south to Texas.

Noturus flavus Rafinesque, Amer. Month. Mag., 1818, 41, falls of Ohio River.

Noturus luteus Rafinesque, Jour. Phys., 1819, 421, Ohio River.

Noturus occidentalis Gill, Proc. Bost. Soc. Nat. Hist., VIII, 1862, 45, Platte River.

Noturus platycephalus Gunther, Cat., V, 1864, 104, North America.

Genus 379. SCHILBEODES Bleeker. Tadpole cats.

Schilbeodes Bleeker, Ichth. Archip. Indici. Prodr. Siluri, 1858, 258 (*Silurus gyrinus* Mitchell).

1174. *Schilbeodes gyrinus* (Mitchell).

Hudson River and westward through almost the entire Mississippi Valley, and Great Lakes region.

Silurus gyrinus Mitchell, Amer. Month. Mag., 1818, 322, Walkill River, N. Y.

Noturus sialis Jordan, Bull. U. S. Nat. Mus., X, 1877, 102, White River, Ind.

Genus 380. TROGLOGLANIS Eigenmann.

Trogloglanis Eigenmann, Proc. Amer. Phil. Soc., LVIII, 1919, 397 (*T. pattersoni* Eigenmann).

1175. *Trogloglanis pattersoni* Eigenmann.

Artesian well in San Antonio, Tex.

Trogloglanis pattersoni Eigenmann, Proc. Amer. Phil. Soc., LVIII, 1919, 397, figs. 1 and 2.

Genus 381. RABIDA Jordan and Evermann. Mad toms.

Rabida Jordan and Evermann, Fishes North and Mid Amer., 1896, 146 (*Noturus furiosus* Jordan and Meek).

Pimelodon (LeSueur) Vaillant, Bull. Soc. Philom., 1896, 28 (*Pimelodon insignarius* LeSueur, unpublished plate of 1819; probably *Pimelodus insigne* Richardson, the *lemniscatus* = *Pimelode insigne* of LeSueur).

Subgenus PIMELODON.

1176. *Rabida leptacantha* (Jordan).

Gulf States, in sandy streams; basins of Ogeechee, Alabama, and Pearl Rivers.

Noturus leptacanthus Jordan, Ann. Lyc. Nat. Hist. N. Y., XI, 1876, 352, Silver Creek, branch of Etowah River, Rome, Ga.

1177. *Rabida nocturna* (Jordan and Gilbert).
Sandy streams, among weeds, in lower Mississippi Valley; known from the lower Wabash in Indiana and from the Poteau, Washita, and Saline Rivers, Ark
Noturus nocturnus Jordan and Gilbert, Proc. U. S. Nat. Mus., IX, 1886, 6, Saline River at Benton, Ark.
1178. *Rabida funebris* (Jordan and Swain).
Tributary of Black Warrior River, Tuscaloosa, Ala
Noturus funebris Jordan and Swain, Bull. U. S. Fish Com., IX, 1889, 153, North River, Tuscaloosa, Ala.
1179. *Rabida exilis* (Nelson).
Wisconsin to Missouri and Kansas; common in prairie streams.
Noturus exilis Nelson, Bull. Ill. Lab. Nat. Hist., 1876, 51, Illinois River.
Noturus classochor Swain and Kalb, Proc. U. S. Nat. Mus., V, 1882, 639, Naperville, Ill.
1180. *Rabida insignis* (Richardson). *Mad tom*.
Pennsylvania to South Carolina; very common in streams east of the Alleghenies.
Pimelodus insignis Richardson, Fauna Bor.-Amer., III, 1836, 32, based on *Pimelode livree* LeSueur, Mem. Mus., V, 1819, 155, locality not known.
Noturus marginatus Baird, in Cope, Jour. Acad. Nat. Sci. Phila., VI, 1869, 237, Pa.
Pimelodon insignarius LeSueur, in Vaillant, Bull. Soc. Philom., 1896, 28.
1181. *Rabida gilberti* (Jordan and Evermann).
Roanoke River in southern Virginia, locally abundant.
Noturus gilberti Jordan and Evermann, Proc. U. S. Nat. Mus., XI, 1888, 352, Roanoke River, Roanoke, Va.
1182. *Rabida miura* (Jordan).
Mississippi Valley and tributaries of Lake Michigan, south to Louisiana; common in the Ohio Valley.
Noturus miurus Jordan, Ann. Lyc. Nat. Hist. N. Y., XI, 1877, 371, White River, Ind.
1183. *Rabida eleuthera* (Jordan).
Mississippi Valley, rare, but widely distributed; tributaries of French Broad River (Big Pigeon River, Clifton, Tenn., French Broad at Hot Springs, N. C.); White River, Gosport, Ind.; Green River, Greensburg, Ky.; Schriner Lake, Columbia City, Ind.; White River, Fayetteville, Ark.; Sallisaw River, Indian Territory [Okla.]. Only a few specimens known.
Noturus eleutherus Jordan, Ann. Lyc. Nat. Hist. N. Y., XI, 1877, 371, Big Pigeon River, Clifton, Tenn.
1184. *Rabida furiosa* (Jordan and Meek).
Eastern North Carolina; known from the Neuse, Tar, and Little Rivers.
Noturus furiosus Jordan and Meek, Proc. U. S. Nat. Mus., XI, 1888, 351, Neuse River, N. C.

Family 94. PIMELODIDÆ. South American catfishes; Bagres de Rio

Genus 382. CONORHYNCHOS Bleeker.

Conorhynchus Bleeker, Vissch. Ind. Archipel. Siluri, 1858, 191 (*Pimelodus conirostris* Cuvier and Valenciennes), not *Conorhynchus* Nozeman, a pre-Linnæan name (1757) revived by Gill (1861).
Conorhynchichthys Regan, *Conorhynchus* being regarded as preoccupied.

1185. *Conorhynchus nelsoni* Evermann and Goldsborough.

Rio Usumacinta, Yucatan.

Conorhynchus nelsoni Evermann and Goldsborough, Bull. U. S. Fish Com., XXI, 1901 (1902), 140, fig. 1, Rio Usumacinta at Monte Cristo, Yucatan.

Genus 383. RHAMDIA Bleeker. *Bagrés de Rio*.

Pteronotus Swainson, Nat. Hist. Fishes, Amphib., etc., II, 1839, 309 (*Heterobranchius septentaculatus* Agassiz, preoccupied in mollusks).

Rhamdia Bleeker, Vissch. Ind. Archipel.: Siluri, 1858, 197 (*Pimelodus quelon* Quoy and Gaimard).

Rhamdella Eigenmann and Eigenmann, Proc. Calif. Acad. Sci., 2d ser., I, 1888, 172 (*R. eriarcha* Eigenmann and Eigenmann).

1186. *Rhamdia wagneri* (Gunther). *Barbudo*.
Rivers of Central America, on both sides of the mountains; very abundant.
Pimelodus wagneri Günther, Fish. Cent. Amer., 1869, 474, Atlantic and Pacific rivers of Panama.
Rhamdia bransfordi Gill, Proc. Acad. Nat. Sci. Phila., XXVIII, 1876, 337, Panama.
1187. *Rhamdia oaxacæ* Meek. *Bagre*.
Streams of Mexico on the Atlantic side south of Vera Cruz.
Rhamdia oaxacæ Meek, Field Col. Mus., Zool., III, 74 (figured in plate V, loc. cit., V, 1905) Rio Quiotepec, Cuicatlan, Mexico.
1188. *Rhamdia baronis-mülleri* (Troschel).
"Pacific Ocean" in Mexico.
Pimelodus baronis-mülleri Troschel, in Müller's Beitr. Gesch. Statist. und Zool. Mexico, III, 1865, 636, no definite locality.
1189. *Rhamdia motaguensis* (Gunther).
Rio Motagua, Guatemala.
Pimelodus motaguensis Günther, Cat., V, 1864, 127, Rio Motagua, Guatemala.
1190. *Rhamdia guatemalensis* (Günther).
Huamuchal, Guatemala.
Pimelodus guatemalensis Günther, Cat., V, 1864, 122, Rio Huamuchal, Guatemala.
Pimelodus brachypterus Cope, Trans. Amer. Phil. Soc., XIII, 1866, 404, Orizaba, Mexico.
1191. *Rhamdia salvini* (Gunther).
Rio San Geronimo, Guatemala.
Pimelodus salvini Günther, Cat., V, 1864, 130, Rio San Geronimo, Guatemala.
1192. *Rhamdia hypselura* (Günther).
Mexico.
Pimelodus hypselurus Günther, Cat., V, 1864, 126, Mexico.
1193. *Rhamdia brachycephala* (Regan).
Mexico.
Pimelodus brachycephalus Regan, Ann. Mag. Nat. Hist., XIX, 1907, 258, Guatemala, Rio Nacasil.
1194. *Rhamdia laticauda* (Heckel).
Mexico.
Pimelodus laticaudus Heckel, in Kner, Sitzungsber. Kais. Akad. Wiss. Wien, XXVI, 1857, 420, Mexico.
1195. *Rhamdia godmani* (Günther).
Valley of Rio Usumacinta, Guatemala.
Pimelodus godmani Günther, Cat., V, 1864, 124, Rio Usumacinta, Guatemala.
1196. *Rhamdia nicaraguensis* (Günther).
Lake Nicaragua.
Pimelodus nicaraguensis Günther, Cat., V, 1864, 125, Lake Nicaragua, Nicaragua.
1197. *Rhamdia microptera* (Günther).
Rio San Geronimo, Guatemala.
Pimelodus micropterus Günther, Cat., V, 1864, 124, Rio San Geronimo, Guatemala.
1198. *Rhamdia managuensis* (Günther).
Lake Managua, Nicaragua.
Pimelodus managuensis Günther, Fish. Cent. Amer., 1869, 474, Lake Managua, Nicaragua.
1199. *Rhamdia cabreræ* Meek.
Lake Amatitlan, Guatemala.
Rhamdia cabreræ Meek, Field Mus. Nat. Hist., Zool., VII, 1906, 93, Lake Amatitlan, Nicaragua.

1200. *Rhamdia barbata* Meek. *Chuchin*.
Lakes of Nicaragua.
Rhamdia barbata Meek, Field Mus. Nat. Hist., Zool., VII, 1907, 106,
San Francisco, Nicaragua.
1201. *Rhamdia sacrificii* Barbour and Cole
Chichen-Itza, Yucatan.
Rhamdia sacrificii Barbour and Cole, Bull. Mus. Comp. Zool., L, 1906,
No. 5, 156, Sacrificial Cenote, near Chichen-Itza, Yucatan.
1202. *Rhamdia depressa* Barbour and Cole.
Near Chichen-Itza, Yucatan.
Rhamdia depressa Barbour and Cole, Bull. Mus. Comp. Zool., L, 1906,
No. 5, 155, pl. 1, Ikil Cenote, near Chichen-Itza, Yucatan.
1203. *Rhamdia heteracantha* Regan.
Costa Rica.
Rhamdia heteracantha Regan, Biol. Centrali-Amcr., Pisces, 1907, 134,
Juan Viñas, Costa Rica.
1204. *Rhamdia polycaula* (Gunther).
Rio San Geronimo.
Pimelodus polycaulus Gunther, Cat., V, 1864, 131, Rio San Geronimo.
1205. *Rhamdia petenensis* (Gunther).
Lake Peten, Yucatan.
Pimelodus petenensis Gunther, Cat., V, 1864, 126, Lake Peten, Yucatan.
1206. *Rhamdia parryi* Eigenmann.
Rio Zanalenco, Chiapas.
Rhamdia parryi Eigenmann, Proc. Calif. Acad. Sci., 2d ser., I, 1888,
130, Rio Zanalenco, Chiapas.
1207. *Rhamdia underwoodi* Regan.
Costa Rica.
Rhamdia underwoodi Regan, Biol. Centrali-Amcr., Pisces, 1907, 135,
pl. 23, fig. 4, Juan Viñas, Costa Rica.
1208. *Rhamdia rogersi* (Regan).
Pimelodus rogersi Regan, Ann. Mag. Nat. Hist., XIX, 1907, 259,
Irazu, Costa Rica.
Rhamdia regani Meek, Field Mus. Nat. Hist., Zool., VII, 1907, 144,
Rio Tiribi, San José.
- Genus 384. *CÆCORHAMIDIA* Norman.
Cæcorhamdia J. R. Norman, Ann. Mag. Nat. Hist., ser. 9, XVIII, 1926,
324 (*C. urichi* Norman).
1209. *Cæcorhamdia urichi* Norman.
Guacharo Cave, Trinidad.
Cæcorhamdia urichi J. R. Norman, Ann. Mag. Nat. Hist., ser. 9,
XVIII, 1926, 324, Guacharo Cave, Trinidad.
- Genus 385. *PIMELODELLA* Eigenmann and Eigenmann.
Pimelodella Eigenmann and Eigenmann, Proc. Calif. Acad. Sci., 2d
ser., I, 1888, 131 (*Pimelodus cristatus* Muller and Troschel).
1210. *Pimelodella chagresi* (Steindachner).
Rio Chagres.
Pimelodus chagresi Steindachner, Ichth. Beitr., IV, 1876, 34, Rio
Chagres at Obispo, Canal Zone.
- Genus 386. *PIMELODUS* Lacépède.
Pimelodus Lacépède, Hist. Nat. Poiss., V, 1803, 94 (*P. maculatus*
Lacépède, as restricted by authors=*Silurus clarias* Bloch).
Pseudariodes Bleeker, Nederl. Tijdschr. Dierk., 1863, 99 (*Silurus clarias*
Bloch).
Pseudorhamdia Bleeker, Versl. Akad. Amsterdam, XIV, 1862, 384
(*Pimelodus ascita* Bleeker).

1211. *Pimelodus clarias* (Bloch).

- Rio Mamoni (Panama) and southeastward to Rio de la Plata.
Silurus clarias Linnaeus, Syst. Nat., ed. X, 1758, 306, in part, not the type.
Pimelodus maculatus Lacépède, Hist. Nat. Poiss., V, 1803, 94, 107, Rio de la Plata.
Piramutana blochii Gunther, Cat., V, 1864, III, Cayenne; Surinam.
Pimelodus rigidus Spix, in Agassiz, Pisc. Brasil, 1829, 19, Brazil.
Pimelodus macronema Bleeker, Silures de Suriname, 1864, 79, pl. 14, Surinam.
Pseudaroides pantherinus Lutken, Meddel. Nat. Hist. Foren., 1874, Nos. 1, 2, p. 194, Venezuela.
Pseudorhamdia piscatrix Cope, Proc. Amer. Phil. Soc. Phila., XI, 1870, 569, Pebas.
Piramutana macrospila Gunther, Ann. and Mag. Nat. Hist., 5th ser., VI, July, 1880, 10, Pl. II, Pirana, Rio de la Plata.
Megalonema punctatum Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X, 1913, 77, Rio Tuyra, Marrigante, Panama.
Megalonema robustum Meek and Hildebrand, loc. cit., 78, Rio Tuyra, Marrigante, Panama.

Genus 387. TRACHCORYSTES Bleeker.

- Trachcorystes* Bleeker, Vissch. Ind. Archipel. Silur., 1858, 20 (*T. typus* Bleeker).
Parauchenipterus Bleeker, Nederl. Tijdschr. Dierk., I, 1863, 7 (*Silurus galeatus* L.).

1212. *Trachcorystes amblops* (Meek and Hildebrand).

- Rio Tuyra Basin, Panama.
Felchihys amblops Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X, 1913, 77, Rio Tuyra, Marrigante, Panama.

Genus 388. AGENEIOSUS Lacépède

- Ageneiosus* Lacépède, Hist. Nat. Poiss., V, 1803, 132 (*A. armatus* Lacépède = *Silurus militaris* Linnaeus).
Pseudogeneiosus Bleeker, Nederl. Tijdschr. Dierk., I, 1863, 14 (*Ageneiosus brevifilis* Cuvier and Valenciennes).

1213. *Ageneiosus caucanus* Steindachner.

- Lower Rio Tuyra, Marrigante, Panama.
Ageneiosus caucanus Steindachner, Denkschr. Kais. Akad. Wiss. Wien, XLI, 1880, 61, Pl. VI, figs. 1, 2, Rio Cauca, Panama.

Family 95. PYGIDIIDÆ**Genus 389. PYGIDIUM Meyen.**

- Pygidium* Meyen, Reise in Peru, I, 1835, 475 (*P. fuscum* Meyen).

1214. *Pygidium striatum* Meek and Hildebrand.

- Upper Tuyra Basin, Panama.
Pygidium striatum Meek and Hildebrand, Field. Mus. Nat. Hist., Zool., X, 1913, 78, Rio Cana, Cana, Panama.

Family 96. ASTROBLEPIDÆ**Genus 390. ASTROBLEPUS³¹ Humboldt. Cave catfishes.**

- Astroblepus* Humboldt, Obs. Zool. Phil. Mag., XXIV, 1806, 19, 331 (*A. graxalvi* Humboldt).
Cyclopium Swainson, Nat. Hist. Fish., Amphib., etc., II, 1839, 305 (*Pimelodus cyclopium* Humboldt = *Cyclopium humboldti* Swainson).
Arges Cuvier and Valenciennes, Hist. Nat. Poiss., XV, 1840, 333 (*A. sabalo* Cuvier and Valenciennes).
Brontes Cuvier and Valenciennes, loc. cit., 341 (*B. prenadilla* Cuvier and Valenciennes, preoccupied).
Strephon Gistel, Thierreich., VIII, 1848 (*Brontes prenadilla* Cuvier and Valenciennes, preoccupied).
Stygogenes Gunther, Cat., V, 1864, 223 (*S. humboldti* Gunther).

³¹ According to Eigenmann, all these names belong to the same genus

1215. *Astroblepus pirrensis* (Meek and Hildebrand).

Tuyra River Basin.

Cyclopius pirrense Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X, 1913, 83, Rio Cana, Cana, Panama (Pl. XVI, Field Mus. Nat. Hist., Zool., X).**Family 97. CALLICHTHYIDÆ****Genus 391. HOPILOSTERNUM Gill.***Hoplosternum* Gill, Ann. Lyc. Nat. Hist. N. Y., VI, 1858, 395 (*Callichthys lævigatus* Cuvier and Valenciennes = *Callichthys litoratus* Hancock).**1216. *Hoplosternum punctatus* Meek and Hildebrand.**

Rio Marte Arnade, Panama.

Callichthys (Hoplosternum) thoracatus (not Cuvier and Valenciennes), Steindachner, Sitzungsber., Kais. Akad. Wiss. Wien, XLI, 1880, 66, Cauca, near Caceres.*Hoplosternum punctatum* Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X, 1916, 264, Rio Marte Arnade, 6 miles east of Panama City.**Family 98. LORICARIIDÆ. Mailed catfishes****Genus 392. HYPOSTOMUS (Lacépède).***Plecostomus* Gronow, Zoophyl., 1763, 127 (*Plecostomus dorso dipterygio* Gronow); not binomial.*Hypostomus* Lacépède, Hist. Nat. Poiss., V, 1803, 144 (*Hypostomus guacari* Lacépède).**1217. *Hypostomus plecostomus* (Linnæus).**

Both slopes of Panama, south to Uruguay.

Loricaria plecostomus Linnæus, Syst. Nat., ed. XII, I, 1766, 508, America.*Hypostomus guacari* Lacépède, Hist. Nat. Poiss., V, 1803, 145, America.*Loricaria flava* Shaw, Gen. Zool., V, 1805, 38, pl. 101.*Hypostomus robeni* Gill, Ann. Lyc. Nat. Hist. N. Y., VI, 1858, 46, Trinidad.*Hypostomus brasiliensis* Bleeker, Silures de Suriname, 1864, 7, Surinam.*Plecostomus seminudus* Eigenmann and Eigenmann, Proc. Calif. Acad. Sci., 2nd ser., I, 1888, 169, Brazil.*Plecostomus boulengeri* Eigenmann and Kennedy, Proc. Acad. Nat. Sci. Phila., LV, 1903, 502, Paraguay.**Genus 393. THYSANOCARA Regan.***Thysanocara* Regan, Ann. Mag. Nat. Hist., ser. 7, XVII, 1906, 95 (*Hypostomus cirrhosus* Cuvier and Valenciennes).**1218. *Thysanocara spinosa* (Meek and Hildebrand).**

Rare, male taken at mouth of Rio Yape, the female (type) in Rio Calobre, Panama.

Ancistrus spinosus Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X, 1916, 252, Rio Calobre, tributary of the Rio Bayano, Panama.**Genus 394. XENOCARA Regan.***Xenocara* Regan, Trans. Zool. Soc. Lond., XVII, 1903, 251 (*Chætostomus latifrons* Gunther).**1219. *Xenocara chagresi* (Eigenmann and Eigenmann).**

Rio Chagres, Panama.

Ancistrus chagresi Eigenmann and Eigenmann, Proc. Calif. Acad. Sci., 2nd ser., II, 1889, 47, Rio Chagres, Panama.**Genus 395. CHÆTOSTOMA Heckel.***Chætostoma* Heckel, in Tschudi, Fauna Peruana, 1846, 25 (*C. lobarhynchus* Heckel).*Chætostomus* Kner and authors generally; needlessly altered spelling.

1220. *Chætostoma fischeri* (Steindachner). *Couchu*.
Rio Mamoni, near Panama.
Chætostomus fischeri Steindachner, Flussfische Südamerikas, I, 1879, 14,
Rio Mamoni, Panama
- Genus 396. **LASIANCISTRUS** Regan.
Lasiancistrus Regan, Trans. Zool. Soc. Lond., XVII, Pt. III, 1904, 224
and 237 (*Chætostomus heteracanthus* Gunther).
1221. *Lasiancistrus planiceps* (Meek and Hildebrand).
Rio Tuyra Basin, Panama.
Ancistrus planiceps Meek and Hildebrand, Field Mus. Nat. Hist., Zool.,
X, 1913, 79, Pl. X; loc. cit., 1916, Rio Tuyra, Boca de Cupe, Panama.
- Genus 397. **LEPTOANCISTRUS** Meek and Hildebrand.
Leptoancistrus Meek and Hildebrand, Field. Mus. Nat. Hist., Zool.,
X, 1916, 254 (*Ancanthus canescens* Meek and Hildebrand).
1222. *Leptoancistrus canensis* (Meek and Hildebrand).
Mountain streams near Cana, Panama
Acanthicus canensis Meek and Hildebrand, Field Mus. Nat. Hist., Zool.,
X, 1913, 80, Rio Cana, Cana, Panama.
- Genus 398. **STURISOMA** Swainson.
Sturisoma Swainson, Nat. Hist. Fish., Amphib., etc., II, 1839, 304
(*Loricaria rostrata* Spix).
Hemiodon Kner, Panzerwelse, Denkschr., Kais. Akad. Wiss. Wien, 1854,
65 (*H. depressus* Kner).
1223. *Sturisoma rostrata* (Spix).
Rivers of eastern South America, from Panama to the Paraguay;
widely distributed and abundant.
Loricaria rostrata Spix, Pisc. Brasil., 1829, 5, Pl. III, Rio Blanco, Brazil
Loricaria acuta Cuvier and Valenciennes, Hist. Nat. Poiss., XV, 1840,
349 (472), pl. 452, Barra di Rio Negro.
? *Loricaria barbata* Kner, Panzerwelse, Denkschr. Kais. Akad. Wiss.
Wien, 1853, 87, Rio Cujuba.
- Genus 399. **ANCISTRUS** Bleeker.
Ancistrus Kner, Denkschr., Kais. Akad. Wiss. Wien, VII, 1854, 272
(abstract issued in 1853; *Ancistrus medians* Kner, as first restricted
by Gill).
Hemiancistrus Bleeker, Nederl. Tijdschr. Dierk., I, 1862 (1863), 78
(*Ancistrus mediana* Kner).
1224. *Ancistrus guacharote* (Cuvier and Valenciennes).
Porto Rico.
Hypostomus guacharote Cuvier and Valenciennes, Hist. Nat. Poiss., XV,
1840, 375 (508), Porto Rico.
1225. *Ancistrus aspidolepis* (Gunther).
Veragua, Central America.
Chætostomus aspidolepis Gunther, Trans. Zool. Soc. Lond., VI, 1868
(Nov. 27), 477, Veragua.
- Genus 400. **LORICARIA** Linnæus.
Loricaria Linnæus, Syst. Nat., ed. X, 1759, 307 (*L. cataphracta* Linnæus).
Hemiodon Kner, Denkschr. Akad. Wiss. Wien, 1854, about 65 (*H. de-*
pressus Kner).
Loricariichthys Bleeker, Nederl. Tijdschr. Dierk., I, 1863, 3 (*Loricaria*
maculata Bloch)
Pseudoloricaria Bleeker, loc. cit., 3 (*Loricaria læviuscula* Cuvier and
Valenciennes).
Parahemiodon Bleeker, loc. cit., 3 (*P. typus* Bleeker).
Hemioloricaria Bleeker, loc. cit., 3 (*H. caracasenses* Bleeker).
Pseudohemiodon Bleeker, loc. cit., 3 (*Hemiodon platycephalus* Kner).
1226. *Loricaria variegata* Steindachner.
Rio Mamoni, Panama.
Loricaria variegata Steindachner, Flussfische Südamerikas, I, 1879, 15,
Rio Mamoni, Panama.

1227. *Loricaria uracantha* Kner and Steindachner.
Rio Chagres, Panama.
Loricaria uracantha Kner and Steindachner, Abhandl., Bayer. Acad. Wiss., 1865, 56, Rio Chagres, Panama.
Loricaria bransfordi Gill, Proc. Acad. Nat. Sci. Phila., XXVIII, 1876, 338, Empire Station, Isthmus Railway, Panama.
1228. *Loricaria latiura* Eigenmann and Vance.
Rio Tuyra and Rio Atrato Basins, Panama; probably not in Pacific streams.
Loricaria filamentosa latiura Eigenmann and Vance, Ind. Univ. Stud., No. 16, 1912, 13, Boca de Certegai, Panama.
Loricaria tuyrensis Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X, 1913, 81, Rio Capeti, Panama.
1229. *Loricaria capetensis* Meek and Hildebrand.
Rio Tuyra Basin, Panama
Loricaria capetensis Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X, 1913, 80, Pl. XII; loc. cit., 1916; Rio Capeti, tributary Rio Tuyra, Panama.
1230. *Loricaria fimbriata* Eigenmann and Vance.
Rio Tuyra Basin, Panama.
Loricaria fimbriata Eigenmann and Vance, Ind. Univ. Stud., No. 16, 1912, 12; Boca de Certegai and Bernal Creek, Colombia.
1231. *Loricaria altipinnis* Breder.
Tuyra Basin, Pacific slope of Panama.
Loricaria altipinnis C. M. Breder, jr., Amer. Mus. Novitates, CLXXX, 1925, 1, fig 1, 2, Rio Chucunaque, Panama.
- Genus 401. **RINELORICARIA** Bleeker.
Rineloricaria Bleeker, Nederl. Tijdschr. Dierk., I, 1862 (1863), 80 (*Loricaria lima* Kner).
1232. *Rineloricaria lima* (Kner).
Coastwise streams of Brazil, from the Parahyba northward to Panama; widely distributed and abundant in rocky brooks
Loricaria lima Kner, Panzerwelse, Denkschr. Kais. Akad. Wiss. Wien, 1853, 89, Brazil.
? *Loricaria strigilata* Hensel, Wiegmann's Archiv, 1868, 368, Santa Cruz.
- Genus 402. **OXYLORICARIA** Bleeker.
Oxyloricaria Bleeker, Nederl. Tijdschr. Dierk., I, 1863, 5 (*Loricaria barbata* Kner).
1233. *Oxyloricaria panamensis* (Eigenmann and Eigenmann).
Pacific slope of Panama and Colombia, south to Ecuador.
Loricaria rostrata (non Spix) Steindachner, Denkschr. Kais. Akad. Wiss. Wien, XLI, 1879, 165, Rio Mamoni, Panama.
Loricaria panamensis Eigenmann and Eigenmann, Proc. Calif. Acad. Sci., ser. 2, II, 1889, 34, Panama.
Loricaria aurea Steindachner, Anz. Kais. Akad. Wiss. Wien, 1900, 206, Rio Magdalena.
Loricaria frenata Boulenger, Ann. Mag. Nat. Hist., ser. 7, IX, 1902, 69, northwestern Ecuador. *L. aurea* and *L. frenata* are extralimital and may not belong here.
Oxyloricaria dariensis Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X, 1913, 81, Rio Tuyra and Rio Bayano Basins, Panama.
1234. *Oxyloricaria citurensis* Meek and Hildebrand.
Rio Bayano and Rio Tuyra Basins, Panama.
Oxyloricaria citurensis Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X, 1913, 82, Pl. XII, loc. cit., 1916, Rio Cituro, Panama.

Order Z. INIOMI

Family 99. SYNODONTIDÆ. Lizardfishes

Genus 403. TRACHINOCEPHALUS Gill.

Trachinocephalus Gill, Cat. Fish. East Coast N. Amer., Suppl. Proc. Acad. Nat. Sci. Phila., XIII, 1861, 53 (*Saurus myops* Cuvier and Valenciennes).

1235. *Trachinocephalus myops* (Forster). *Ground spearing; Lagarto; Snakefish.*

Tropical parts of the western Atlantic; West Indies and Brazil to coast of South Carolina; occasionally northward to Woods Hole.

Salmo myops Forster, in Bloch and Schneider, Syst. Ichth., 1801, 421, St. Helena.

Osmerus lemniscatus Lacépède, Hist. Nat. Poiss., V, 1803, 236, Martinique; after Plumier.

Saurus truncatus Agassiz, Pisc. Brasil., 1828, 82, Brazil.

Saurus brevirostris Poey, Memorias, II, 1861, 305, Cuba; erroneously stated to have 10 rays.

Genus 404. SYNODUS Gronow. *Lizardfishes.*

Synodus Gronow, in Scopoli, Int. Hist. Nat., 1777, 449 (*S. synodus* L.).

Tirus Rafinesque, Caratteri, 1810, 56 (*T. marmoratus* Rafinesque = *Esox synodus* Linnaeus).

Saurus Cuvier, Règne Anim., ed. 1, 1817, 169 (*Salmo saurus* Linnaeus).

Alpsmaris Risso, Europ. Mérid., III, 1826, 458 (*A. rosso* Risso, very young).

1236. *Synodus synodus* (Linnaeus).

Coast of Brazil and Lesser Antilles.

?*Esox synodus* Linnaeus, Syst. Nat., ed. XII, 1766, 516, America; based on *Synodus* of Gronow.

1237. *Synodus saurus* (Linnaeus). *Tarentola; Lacerto; Tiru.*

Coasts of southern Europe and neighboring islands, recorded by Doctor Goode from the Bermudas.

Salmo saurus Linnaeus, Svst. Nat., Ed. XII, 1766, 511, Mediterranean; after Artedi.

Saurus griseus Lowe, Trans., Zool. Soc. Lond., II, 1841, 188, Madena.

Saurida mediterranea Swainson, Nat. Hist. Anim., II, 1839, 287, Mediterranean; name only.

Tirus marmoratus Rafinesque, Caratteri, 1810, 56, Palermo.

Alpsmaris rosso Risso, Europ. Mérid., III, 1826, 458; very young.

Synodus lacerta Goode, Bull., U. S. Nat. Mus., V, 1876, 68, Bermuda specimen; not of Risso.

1238. *Synodus foetens* (Linnaeus). *Lizardfish; Gallwas; Lagarto; Soapfish.*

Cape Cod to Brazil, very common from South Carolina southward on sandy coasts.

Salmo foetens Linnaeus, Syst. Nat., ed. XII, 1766, 513, South Carolina.

Osmerus albidus Lacépède, Hist. Nat. Poiss., V, 1803, 229, Carolinas; after Linnaeus.

Coregonus ruber Lacépède, loc. cit., 263, Martinique; after Plumier.

Esox salmoneus Mitchell, Trans., Lit. Phil. Soc. N. Y., I, 1815, 442, New York.

Saurus longirostris Agassiz, Spix. Pisc. Brasil., 1828, pl. 43, Brazil.

Saurus mexicanus Cuvier, Règne Anim., ed. 2, 1829, 314, Mexico.

Saurus spixianus Poey, Memorias, II, 1861, 304, Cuba.

1239. *Synodus lucioceps* (Ayres).

San Francisco to Santa Barbara, rather common in summer.

Saurus lucioceps Ayres, Proc. Calif. Acad. Nat. Sci., I, 1855, 69, San Francisco.

1240. *Synodus jenkinsi* Jordan and Bollman.

Gulf of California to Galapagos Islands in 16 to 33 fathoms; common.

Synodus jenkinsi Jordan and Bollman, Proc. U. S. Nat. Mus., XII, 1889, 153, off coast of Colombia, Galapagos Islands.

1241. *Synodus scituliceps* Jordan and Gilbert.
Cape San Lucas to Panama.
Synodus scituliceps Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881,
344, Mazatlan, Mexico.
1242. *Synodus lacertinus* Gilbert.
Acapulco, Mexico; one specimen known.
Synodus lacertinus Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 55,
Acapulco, Mexico.
1243. *Synodus poeyi* Jordan.
Cuba; abundant.
Synodus poeyi Jordan, Proc. U. S. Nat. Mus., IX, 1886, 526, Habana.
1244. *Synodus intermedius* (Agassiz). *Sand-dwer*.
Coast of southern Florida to Brazil; not rare.
Saurus intermedius Agassiz, Spix, Pisc. Brasil., 1828, 81, Brazil.
Saurus anolis Cuvier and Valenciennes, Hist. Nat. Poiss., XXII, 1849,
483, Bahia, Martinique.
1245. *Synodus evermanni* Jordan and Bollman.
Mazatlan to coast of Colombia; abundant.
Synodus evermanni Jordan and Bollman, Proc. U. S. Nat. Mus., XII,
1889, 152, Pacific Ocean off coast of Colombia in 33 fathoms.
1246. *Synodus simulans* Garman.
Off Cocos Island.
Synodus simulans Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 251,
Pl. I, fig 3; towings at surface off Cocos Island.
1247. *Synodus acutus* Garman.
Off Panama
Synodus acutus Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 252,
off coast of Panama.
- Genus 405. **BATHYSAURUS** Günther.
Bathysaurus Gunther, Ann. Mag. Nat. Hist., ser. 5, II, 1878, 181 (*B. ferox* Gunther).
1248. *Bathysaurus agassizii* Goode and Bean.
Gulf Stream, in deep water.
Bathysaurus agassizii Goode and Bean, Bull. Mus. Comp. Zool., X,
1882, No. 5, 215, Gulf Stream, 33° N., in 647 fathoms.
1249. *Bathysaurus mollis* Günther.
Southern Pacific to coast of Lower California
Found off Lower California, 23° N., 1,760 fathoms (only N. Amer.
record; Townsend and Nichols, Bull. Amer. Mus. Nat. Hist., LII,
1925, 10).
Bathysaurus mollis Gunther, Ann. Mag. Nat. Hist., 5th ser., II, 1878,
182, middle of South Pacific off Yeddo, in 1,875 and 2,385 fathoms.
- Genus 406. **BATHYLACO** Goode and Bean
Bathylaco Goode and Bean, Oceanic Ichth., 1895, 57 (*B. nigricans* Goode
and Bean).
1250. *Bathylaco nigricans* Goode and Bean.
Gulf of Mexico; off Santa Cruz, at a depth of 2,393 fathoms; a single
specimen known.
Bathylaco nigricans Goode and Bean, Oceanic Ichth., 1895, 57, fig. 69,
off Santa Cruz, Mexico.
- Genus 407. **SAURIDA** Cuvier and Valenciennes.
Saurida Cuvier and Valenciennes, Hist. Nat. Poiss., XXII, 1849, 499
(*Salmo tumbil* Bloch).
1251. *Saurida nebulosa* Cuvier and Valenciennes.
West Indies north to St. Eustatius.
Saurida nebulosa Cuvier and Valenciennes, Hist. Nat. Poiss., XXII,
1849, 504, pl. 649.

Family 100. CHLOROPHTHALMIDÆ

Genus 408. CHLOROPHTHALMUS Bonaparte.

Chloropthalmus Bonaparte, Icon. Fauna Italica, III, 1834, 144 (*C. agassizii* Bonaparte).

Hyphalonedrus Goode, Proc. U. S. Nat. Mus., III, 1880, 483 (*H. chalybeius* Goode).

1252. *Chloropthalmus agassizii* Bonaparte.

Atlantic and Mediterranean; western Atlantic.

Chloropthalmus agassizii Bonaparte, Fauna Italica, 1840, pl. 121, Italy.

1253. *Chloropthalmus chalybeius* (Goode).

Gulf Stream, in from 85 to 167 fathoms.

Hyphalonedrus chalybeius Goode, Proc. U. S. Nat. Mus., III, 1880 (Feb. 16, 1881), 484, Gulf Stream off Rhode Island.

1254. *Chloropthalmus truculentus* Goode and Bean.

One specimen, Blake station LII, off Barbados.

Chloropthalmus truculentus Goode and Bean, Oceanic Ichth., 1895, 61, fig. 72, off Barbados in 158 fathoms.

1255. *Chloropthalmus mento* Garman.

Off Panama.

Chloropthalmus mento Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 254, 3, Pl. LIV, figs. 1-1c, Albatross stations 3385, 3386, and 3389 in 210 to 286 fathoms.

Family 101. SUDIDÆ

Genus 409. SUDIS Rafinesque.

Sudis Rafinesque, Caratteri, 1810, 60 (*S. hyalina* Rafinesque).

1256. *Sudis ringens* Jordan and Gilbert.

Santa Barbara Channel, Calif., the only specimen known taken from the stomach of a hake, itself found in the stomach of a long-finned albicore (*Germo*).

Sudis ringens Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 273, Santa Barbara Channel.

1257. *Sudis intermedius* (Poey).

Matanzas, Cuba; one specimen known.

Paralepis intermedius Poey, Repertorio, II, 1867, 416, Mantanzas, Cuba.

Genus 410. ARCTOZENUS Gill.

Arctozenus Gill, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 188 (*Paralepis borealis* Reinhardt).

1258. *Arctozenus borealis* (Reinhardt).

Deep waters of Arctic America.

Paralepis borealis Reinhardt, Vidensk. Selsk. Naturv. Math. Afhandl., VII, 1832, 115, Greenland.

1259. *Arctozenus coruscans* (Jordan and Gilbert).

Puget Sound; one specimen known.

Paralepis coruscans Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 411, Port Townsend, Wash.

Genus 411. PARALEPIS Risso.

Paralepis Risso, in Cuvier, Règne Anim., ed. 1, 1817 (*Coregonus paralepis* Risso = *Paralepis coregonoides* Risso).

1260. *Paralepis coregonoides* Risso.

Mediterranean, rare; Gulf stream at Albatross station 2393.

Paralepis coregonoides Risso, Europ. Mérid., III, 1826, 472, Pl. VII, fig. 15, Nice.

1261. *Paralepis barracudina* Fowler and Phillips.

Coast of New Jersey.

Paralepis barracudina Fowler and Phillips, Proc. Acad. Nat. Sci. Phila., LXII, 1910, 403, with figure, Corsons Inlet, Cape May County, N. J.

Genus 412. LESTIDIOPS Hubbs.

Lestidiops Hubbs, Univ. Calif. Publ. Zool., XVI, 1916, 154 (*L. sphyrænops* Hubbs).

1262. Lestidiops sphyrænops Hubbs.

Lestidiops sphyrænops Hubbs, Univ. Calif. Pub. Zool., XVI, 1916, 155, pl. 18, Avalon Bay, Santa Catalina Island.

Family 102. BATHYPTEROIDÆ**Genus 413. BATHYPTEROIS** Günther.

Bathypterois Günther, Ann. Mag. Nat. Hist., ser. 5, II, 1878, 83 (*B. longifilis* Günther).

Synapteretmus Goode and Bean, Oceanic Ichth., 1895, 64 (*Bathypterois quadrifilis* Günther).

Subgenus SYNAPTERETMUS Goode and Bean.**1263. Bathypterois quadrifilis** Günther.

Brazil; St Vincent.

Bathypterois quadrifilis Günther, Ann. Mag. Nat. Hist., II, 1878, 184, off coast of Brazil in 500 to 770 fathoms.

1264. Bathypterois pectoralis Garman.

Off Central America in deep water.

Bathypterois pectoralis Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 257, Pl. K, fig. 1, Albatross stations 3376, 3393, 3407, and 3431 in 885 to 1,132 fathoms.

1265. Bathypterois ventralis Garman.

Off west coast of Mexico.

Bathypterois ventralis Garman, Mem., Mus. Comp. Zool., XXIV, 1899, Pl. LV, fig. 1, 256, Albatross stations 3418 and 3425 in 660 to 680 fathoms.

Family 103. BENTHOSAURIDÆ**Genus 414. BENTHOSAURUS** Goode and Bean.

Benthosaurus Goode and Bean, Bull. Mus. Comp. Zool., XII, 1886, No 5, 168 (*B. grillator* Goode and Bean).

1266. Benthosaurus grillator Goode and Bean.

Gulf of Mexico and Gulf Stream, in lat. 24° 33' N., long. 84° 23' W., and lat. 39° 3' 15'' N., long. 70° 50' 45'' W.

Benthosaurus grillator Goode and Bean, Bull. Mus. Comp. Zool., XII, 1886, No. 5, 168, Gulf Stream.

Family 104. MYCTOPHIDÆ.³² Lanternfishes**Genus 415. MACROSTOMA** Risso.

Macrostoma Risso, Europ. Mérid., III, 1826, 447 (*Macrostoma angustidens* Risso); not *Macrostomus* Wied., a genus of insects.

Notoscopelus Günther, Cat., V, 1864, 405 (*Lampanyctus resplendens* Richardson), to replace *Macrostoma*, regarded as preoccupied.

Catablella Eigenmann and Eigenmann, Proc. Calif. Acad. Sci., III, 1890, 3, 24, (*C. brachycheir* Eigenmann and Eigenmann).

1267. Macrostoma angustidens Risso. *Prickfish; Maure d'Amplora.*

Atlantic and Indian Oceans, Norway and Greenland.

Macrostoma angustidens Risso, Europ. Mérid., III, 1826, 448, off Nice.

1268. Macrostoma quercinum (Goode and Bean).

Western Atlantic; Mediterranean.

Notoscopelus quercinus Goode and Bean, Oceanic Ichth., 1895, 83, fig. 97, Grand Banks, Newfoundland.

1269. Macrostoma margaritifera (Goode and Bean).

Grand Banks of Newfoundland.

Notoscopelus margaritifera Goode and Bean, Oceanic Ichth., 1895, 84, fig. 98, off Banquereau.

³² Several species recently described as *Myctophum* may prove to belong to other genera.

1270. *Macrostoma castaneum* (Goode and Bean).
Grand Banks.
Notoscopelus castaneus Goode and Bean, *Oceanic Ichth.*, 1895, 84, fig. 95, Grand Banks, Newfoundland.
- Genus 416. **CERATOSCOPELUS** Günther.
Ceratioscopelus Gunther, Cat., V, 1864, 405 and 412 (*Scopelus madeirensis* Lowe).
1271. *Ceratioscopelus madeirensis* (Lowe).
Atlantic and Mediterranean; west to the Grand Banks.
Scopelus madeirensis Lowe, *Proc. Zool. Soc. Lond.*, 1839, 87, Madeira.
- Genus 417 **LAMPANYCTUS** Bonaparte.
Lampanyctus Bonaparte, *Fauna Italica*, Fasc. XXVII, 1840 (*L. bonapartei* Bonaparte).
1272. *Lampanyctus guntheri* Goode and Bean.
Grand Banks
Lampanyctus guntheri Goode and Bean, *Oceanic Ichth.*, 1895, 79, fig. 90, Grand Banks.
1273. *Lampanyctus gemmifer* Goode and Bean.
Gulf Stream.
Lampanyctus gemmifer Goode and Bean, *Oceanic Ichth.*, 1895, 80, fig. 88, Grand Banks, in lat. 39° 40' N., long. 71° 35' W., in 538 fathoms.
1274. *Lampanyctus lacerta* Goode and Bean.
Gulf of Mexico.
Lampanyctus lacerta Goode and Bean, *Oceanic Ichth.*, 1895, 81, fig. 89, Gulf of Mexico, in lat. 28° 38' 30'' N., long. 85° 52' 30'' W.
1275. *Lampanyctus ritteri* Gilbert.
Coast of California; Monterey Bay; San Clemente.
Lampanyctus ritteri Gilbert, *Proc. U. S. Nat. Mus.*, XLVII, 1915, 318, pl. 15, fig. 3, Monterey Bay; San Clemente Island, Calif.
- Genus 418. **NYCTIMASTER** Jordan.
Nyctimaster Jordan, *Proc. U. S. Nat. Mus.*, LIX, 1921, 645 (*Lampanyctus jordani* Gilbert).
Most of the species hitherto referred to *Lampanyctus*, having the scales of the lateral line not larger than the others, should be referred to *Nyctimaster*.
1276. *Nyctimaster townsendi* (Eigenmann and Eigenmann).
Cortez Banks near San Diego, in 45 fathoms
Myctophum townsendi Eigenmann and Eigenmann, *West Amer. Scientist*, 1889, 125, Cortez Banks, off San Diego, Calif.
1277. *Nyctimaster alatus* (Goode and Bean).
Gulf of Mexico.
Lampanyctus alatus Goode and Bean, *Oceanic Ichth.*, 1895, 79, Gulf Stream.
- Genus 419. **LAMPADENA** Goode and Bean.
Lampadena Goode and Bean, *Oceanic Ichth.*, 1895, 85 (*L. speculigera* Goode and Bean).
1278. *Lampadena speculigera* Goode and Bean.
Gulf Stream.
Lampadena speculigera Goode and Bean, *Oceanic Ichth.*, 1895, 85, fig. 99, Gulf Stream, lat. 39° 48' N., long. 70° 36' W., in 551 fathoms.
- Genus 420. **NANNOBRACHIUM** Günther.
Nannobranchium Gunther, *Deep Sea Fishes*, *Challenger*, 1887, 199, (*N. nigrum* Günther).
1279. *Nannobranchium nannochir* (Gilbert).
Alaska to Santa Barbara Islands, in deep water.
Myctophum nannochir Gilbert, *Proc. U. S. Nat. Mus.*, XIII, 1890, 51, off Washington, *Albatross* stations 2925, 3072, and others, in 266 to 685 fathoms.

1280. *Nannobranchium leucopsarum* (Eigenmann and Eigenmann).
Pacific coast of America, from Alaska to San Diego
Myctophum (*Stenobranchius*) *leucopsarum* Eigenmann and Eigenmann,
Proc. Calif. Acad. Sci., 2d ser., III, 1890, 5, off Point Loma, Calif.,
in stomachs of *Sebastodes*.
1281. *Nannobranchium macdonaldi* Goode and Bean.
Gulf Stream.
Nannobranchium macdonaldi Goode and Bean, Oceanic Ichth., 1895, 94,
fig. 110, Gulf Stream.
1282. *Nannobranchium regale* (Gilbert).
Santa Barbara Channel, in deep water.
Myctophum regale Gilbert, Proc. U. S. Nat. Mus., XIV, 1891, 544,
Santa Barbara Channel, *Albatross* station 2923, in 822 fathoms.
1283. *Nannobranchium mexicanum* (Gilbert).
Coast of Lower California, in deep water.
Myctophum mexicanum Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 51,
off Lower California, at *Albatross* stations 3008 and 3009 in 306
and 857 fathoms.
- Genus 421. *ÆTHOPRORA* Goode and Bean.
Æthoprora Goode and Bean, Oceanic Ichth., 1895, 86 (*Scopelus meto-*
poclampus Cocco).
1284. *Æthoprora effulgens* Goode and Bean.
Western Atlantic.
Æthoprora effulgens Goode and Bean, Oceanic Ichth., 1895, 87, fig.
103, Browns Bank and *Albatross* station 2127, 19° 45' N., 75° W.,
in 689 fathoms.
1285. *Æthoprora lucida* Goode and Bean.
Gulf Stream.
Æthoprora lucida Goode and Bean, Oceanic Ichth., 1895, 87, fig. 102,
Gulf Stream, lat. 19° 45' N., long. 75° 4' W.
- Genus 422. *COLLETTIA* Goode and Bean.
Collettia Goode and Bean, Oceanic Ichth., 1895, 88 (*Myctophum rafinesquei*
Cocco).
1286. *Collettia rafinesquei* (Cocco).
Mediterranean and Atlantic; Gulf Stream off the New England coast.
Nyctophus rafinesquei Cocco, *Alcuni Salmon*, etc., 1820, 20, Messina.
1287. *Collettia nocturna* (Poey).
Coast of Cuba.
Myctophum nocturnum Poey, *Memorias*, II, 1861, 426, Cuba.
- Genus 423. *DIAPHUS* Eigenmann and Eigenmann.
Diaphus Eigenmann and Eigenmann, Proc. Calif. Acad. Sci., 2d ser.,
III, 1890, 3 (*Scopelus engraulis* Gunther).
1288. *Diaphus theta* Eigenmann and Eigenmann.
Point Loma, near San Diego, Calif., to coast of Oregon.
Diaphus theta Eigenmann and Eigenmann, Proc. Calif. Acad. Sci.,
2d ser., III, March, 1890, 4, Point Loma, near San Diego.
Myctophum protoculus Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 52,
July 2, coast of Washington, in 584 fathoms, *Albatross* station 3072,
in 584 fathoms.
- Genus 424. *RHINOSCOPELUS* Lütken.
Rhinoscopelus Lütken, Vidensk. Selsk. Naturv. Copenhagen, VII,
1892, 237 (*Scopelus coccoi* Cocco).
Alysia Lowe, Proc. Zool. Soc. Lond., 1839, 87 (*A. loricata* Lowe=
Scopelus coccoi Cocco; name preoccupied).
1289. *Rhinoscopelus andræ* (Lütken).
Open Atlantic and Indian Ocean; Gulf Stream.
Scopelus andræ Lütken, *Spolia Atlantica*, 1892, 25, North Atlantic.
1290. *Rhinoscopelus rarus* (Lütken).
Open Atlantic, west to 50° W., 33° N.
Scopelus rarus Lütken, *Spolia Atlantica*, II, 1892, 26, North Atlantic.

- 1291. *Rhinoscopelus coccoi* (Cocco).**
 West Atlantic, Gulf Stream, Mediterranean, ranging from Newfoundland to Africa.
Scopelus coccoi Cocco, Giorn. Sci. Litt. Art. Sicilia (No. 77), Palermo, 1829, 143 ("Scopelo de Cocco"), Palermo.
Alysia loricata Lowe, Proc. Zool. Soc. Lond., 1839, 87, Madeira.
- Genus 425. MYCTOPHUM Rafinesque. Lanternfishes.**
Myctophum Rafinesque, Indice, 1810, 56 (*M. punctatum* Rafinesque)
Scopelus Cuvier, Règne Anim., ed. 1, 1817, 56 (*Gasteropelecus humboldti* Risso).
Nyctophus Cocco, Giorn. Sci. Litt. Art. Sicil., 1829, 44 (*N. rafinesquei*, substitute for *Myctophum*).
- 1292. *Myctophum punctatum* Rafinesque.**
 Warmer parts of the Atlantic, Grand Banks, and from the Gulf Stream to the Mediterranean.
Myctophum punctatum Rafinesque, Indice, 1810, 56, Pl. II, fig. 5, Palermo.
Scopelinus caninianus Cuvier and Valenciennes, Hist. Nat. Poiss., XXII, 1849, 445, coast of Italy.
- 1293. *Myctophum affine* (Lütken).**
 Open Atlantic west to 63° W., 38° N, and in the open Pacific. Perhaps more than one species included.
Scopelus affine Lutken, Spolia Atlantica, II, 1892, 32, open Atlantic.
Myctophum nitidulum Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 266, Pl. LVI, fig. 3, lat. 27° 50' N., long. 145° 45' 30" W.
Rhinoscopelus oceanicus Jordan and Evermann, Bull. U. S. Fish Com., XX, 1902, 168, Hawaiian Islands.
Myctophum margaritatum Gilbert, loc. cit., XXIII, pt. 2, 1905, p. 596, pl. 68, fig. 2, off south coast of Molokai, Hawaiian Islands.
- 1294. *Myctophum humboldti* (Risso).**
 Open seas, Mediterranean, and Atlantic on both shores.
Gasteropelecus humboldti Risso, Ichth. Nice, 1810, 358, Nice.
- 1295. *Myctophum californiense* Eigenmann and Eigenmann.**
 Cortez Banks, San Diego, Calif.
 ?*Myctophum boops* Richardson, Voy. *Erebus* and *Terror*, 1845, 39, open sea between Australia and New Zealand.
Myctophum californiense Eigenmann and Eigenmann, West Amer. Scientist, Nov. 9, 1889, 124, San Diego, Calif.
- 1296. *Myctophum gracile* (Lütken).**
 Open Atlantic, west to 48° W., 23° N.
Scopelus gracilis Lütken, Spolia Atlantica, II, 1892, 35, open Atlantic.
 ?*Myctophum hians* Richardson, Voy. *Erebus* and *Terror*, 1845, 41, pl. 27, open sea, locality unknown.
- 1297. *Myctophum benoiti* (Cocco).**
 Mediterranean to Norway and Greenland
Scopelus benoiti Cocco, Lett. su Salmon., 1838, 12, pl. 2, fig. 4, Messina.
- 1298. *Myctophum hygomi* (Lutken).**
 North Atlantic, occasional in our waters.
Scopelus hygomi Lutken, Spolia Atlantica, 1892, 257, North Atlantic.
Myctophum remiger Goode and Bean, Oceanic Ichth., 1895, 75, western Atlantic.
- 1299. *Myctophum oculum* Garman.**
 Off Panama in deep water.
Myctophum oculum Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 260, Pl. LVI, fig. 2, numerous stations of the *Albatross*.
- 1300. *Myctophum atratum* Garman.**
 Off western Mexico in the open sea.
Myctophum atratum Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 268, *Albatross* station 3433, lat. 25° 26' 15" N., long. 109° 48' W., in 1,218 fathoms.

1301. *Myctophum lateratum* Garman.
Off Pacific coast of Mexico in open sea
Myctophum lateratum Garman, Mem Mus Comp. Zool., XXIV, 1899,
267, Pl. LVI, fig. 7, several stations of the *Albatross*.
1302. *Myctophum aurolaternatum* Garman.
Off Panama.
Myctophum aurolaternatum Garman, Mem Mus. Comp. Zool., XXIV,
1899, 264, Pl. LV, fig. 3, *Albatross* station 3382, lat. 6° 21' N., long.
80° 41' W. at surface.
1303. *Myctophum luminosum* Garman.
Off Panama.
Myctophum luminosum Garman, Mem. Mus. Comp. Zool., XXIV,
1899, 263, Pl. LV, fig. 2, *Albatross* station 3042, lat. 0° 57' 30'' S.,
long. 89° 3' 30'' W., in 421 fathoms.
1304. *Myctophum tenuiculum* Garman.
Off Panama in deep water
Myctophum tenuiculum Garman, Mem Mus. Comp. Zool., XXIV, 1899,
262, pl. 5, fig. 5, *Albatross* station 3382, lat. 6° 21' N., 80° 41' W.,
at surface.
- Genus 426. **BENTHOSEMA** Goode and Bean.
Benthoosema Goode and Bean, Oceanic Ichth., 1895, 76 (*Scopelus muelleri*
Gmelin).
1305. *Benthoosema arcticum* (Lutken).
Davis Straits, Greenland.
Scopelus arcticus Lutken, Spolia Atlantica, 1892, 29, Davis Straits.
1306. *Benthoosema mulleri* (Gmelin).
North Atlantic, occasional from Norway to Greenland, more abundant
southward to South Carolina; probably always in very deep water.
Salmo mulleri Gmelin, Syst. Nat., 1788, 1378, Norway; after Strom.
Scopelus glacialis Reinhardt, Overs, 1835, 36, Greenland.
- Genus 427. **SCOPELENGYS** Alcock.
Scopelengys Alcock, Ann. Mag. Nat. Hist., ser. 6, VI, 1890, 302 (*S.*
tristis Alcock).
1307. *Scopelengys dispar* Garman.
Off Panama in deep water.
Scopelengys dispar Garman, Mem. Mus. Comp. Zool., XXIV, 1899,
254, Pl. LIV, figs. 2-2d, *Albatross* stations 3353, 3360, 3382, and
3383, in from 695 to 1,832 fathoms.
- Genus 428. **TARLETONBEANIA** Eigenmann and Eigenmann.
Tarletonbeania Eigenmann and Eigenmann, Proc. Calif. Acad. Sci., IV,
1891, 6 (*T. tenua* Eigenmann and Eigenmann).
1308. *Tarletonbeania crenularis* (Jordan and Gilbert).
San Diego and vicinity
Myctophum crenulare Jordan and Gilbert, Proc. U. S. Nat. Mus., III,
1880, 274, Santa Barbara, Calif.
Myctophum procellarium Bean, in Jordan and Gilbert, loc. cit., 467, off
Straits of Fuca.
Tarletonbeania tenua Eigenmann and Eigenmann, Proc. Calif. Acad.
Sci., IV, 1890, 7, Coronado Islands near San Diego, Calif.

Family 105. IPNOPIDÆ

Genus 429. **IPNOPS** Günther.

Ipnops Günther, Ann. Mag. Nat. Hist., II, 1878, 187 (*I. murrayi*
Günther).

1309. *Ipnops murrayi* Günther.

Bottom fish, at about 2,000 fathoms; coast of Brazil, Tristan da Cunha,
Celebes, in tropical America (24° 36' N., 84° W.) and off Bequia,
Windward Islands.

Ipnops murrayi Günther, Ann. Mag. Nat. Hist., II, 1878, 187, coast
of Brazil, etc.

1310. *Ipnots agassizi* Garman.

Pacific coast of Central America in deep water.

Ipnots agassizi Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 259, Pl. H, figs. 2, 2a, Albatross station 3413, lat. 2° 34' N., long. 92° 6' W., in 1,360 fathoms.**Family 106. OMOSUDIDÆ****Genus 430. OMOSUDIS Günther.***Omosudis* Günther, *Challenger* Rept., XXII, 1887, 201 (*O. lowii* Günther).**1311. *Omosudis lowii* Günther.**

Open sea; Gulf Stream at Albatross station 2392.

Omosudis lowii Günther, *Challenger* Rept., XXII, 1887, 201, pl. 52, figs. C, C', Philippine Islands, Magdalena.**Family 107. ALEPISAURIDÆ. Handsawfishes****Genus 431. ALEPISAURUS Lowe.***Plagyodus* Steller, in Pallas, Zoogr. Rosso-Asiat., III, 1811, 383 (no type named, doubtless *P. æsculapius* Bean); given in oblique form only, as *Plagyodontem*.*Alepisaurus* Lowe, Proc. Zool. Soc. Lond., I, 1833 (*A. ferox* Lowe).**1312. *Alepisaurus ferox* Lowe. Lancelfish.**

Deep waters of the Atlantic; occasional off the coasts of Nova Scotia, Massachusetts, and on the Grand Banks.

Alepisaurus ferox Lowe, Trans. Zool. Soc. Lond., I, 1833, 395, Madeira.*Alepisaurus azureus* Cuvier and Valenciennes, Hist. Nat. Poiss., XXII, 1849, 530, Canaries.**1313. *Alepisaurus æsculapius* (Bean). Wolffish; Subotka.**

Coast of Alaska southward to California.

Plagyodus Steller in Pallas, Zoogr. Rosso-Asiat., III, 1811, 383, Kurile Islands.*Alepidosaurus æsculapius* Bean, Proc. U. S. Nat. Mus., V, 1882, 661, Iliuliuk, Unalaska.**Genus 432. CAULOPUS Gill. Handsawfishes.***Caulopus* Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 128 (*Alepidosaurus borealis* Gill).**1314. *Caulopus altivelis* (Poey).**

Cuba, in deep water.

Alepisaurus altivelis Poey, Memorias, II, 1861, 302, Cuba.*Alepidosaurus (Caulopus) poeyi* Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 131, Cuba.**1315. *Caulopus borealis* (Gill). Handsawfish; Serra.**

Pacific coast of America from Alaska to Puget Sound.

Alepidosaurus borealis Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 128, Puget Sound.*Alepidosaurus serra* Gill, loc. cit., 129. "Monterey, Lower California."**Order AA. CETUNCULI****Family 108. RONDELETIIDÆ****Genus 433. RONDELETIA Goode and Bean.***Rondeletia* Goode and Bean, Proc. U. S. Nat. Mus., XVII, 1894, 454 (*R. bicolor* Goode and Bean).**1316. *Rondeletia bicolor* Goode and Bean.**

Gulf Stream.

Rondeletia bicolor Goode and Bean, Proc. U. S. Nat. Mus., XVII, 1894 (1895), 454, pl. 17, fig. 7, and Oceanic Ichth., 1895, 68, fig. 77, at Albatross station 2724 in 1,641 fathoms.

Family 109. CETOMIMIDÆ

Genus 434. CETOMIMUS Goode and Bean.

Cetomimus Goode and Bean, Proc. U. S. Nat. Mus., XVII, 1894, 453
(*C. gillii* Goode and Bean).

1317. *Cetomimus gillii* Goode and Bean.

Gulf Stream.

Cetomimus gillii Goode and Bean, Proc. U. S. Nat. Mus., XVII, 1894
(1895), 452, pl. 17, fig. 2, and in Oceanic Ichth., 1895, 69, fig. 78,
Gulf Stream, in lat. 39° 35' N., long. 71° 24' 30'' W.

1318. *Cetomimus storeri* Goode and Bean.

Gulf Stream.

Cetomimus storeri Goode and Bean, Proc. U. S. Nat. Mus., XVII, 1894
(1895), 453, pl. 17, fig. 3, and in Oceanic Ichth., 1895, 69, fig. 79,
Gulf Stream at Albatross station 2222 in 1,535 fathoms.

Order BB. XENOMI

Family 110. DALLIIDÆ. Alaska blackfish

Genus 435. DALLIA Bean.

Dallia Bean, Proc. U. S. Nat. Mus., II, 1879, 358 (*D. pectoralis* Bean).

1319. *Dallia pectoralis* Bean. Alaska blackfish; *Charma ryba*.

Streams and ponds of northern Alaska and Siberia.

Dallia pectoralis Bean, Proc. U. S. Nat. Mus., II, 1879, 358, St.
Michaels, Alaska.

Umbra delicatissima Smitt, Offer. Kongl. Vetensk. Akad. Forh. Arg.,
Stockholm, 1881, 38, pl. 5, fig. 1, Pittlekag, Siberia.

Order CC. HAPLOMI

Family 111. ESOCIDÆ. Pikes

Genus 436. ESOX Linnæus.

Esox Linnæus, Syst. Nat., ed. X, 1758, 313 (*E. lucius* Linnæus).

Lucrus Geoffroy, Descr. de 719 Plantes, etc., 1767, 407 (*Esox lucius*
Linnæus).

Lucrus Rafinesque, Caratteri, 1810, 59 (*Esox lucius* Linnæus = *L. vorax*
Rafinesque).

Picorellus Rafinesque, Ichth. Ohiensis, 1820, 70 (*Esox vittatus* Rafinesque,
a mythical species).

Mascalongus Jordan, Klippart's rept., Ohio Fish Com., 1878, 92 (*Esox*
masquinongy Mitchill = *Esox nobilior* Thompson).

Kenoza Jordan and Evermann, Fishes North and Mid. Amer., 1896,
626 (*Esox americanus* Gmelin).

Subgenus MASCALONGUS Jordan.

1320. *Esox masquinongy* Mitchill. *Muskallunge*,³³ *Muskellunge*; *Maskinongy*;
Muscalonge; *Great pike*.

Great Lakes region; Upper Mississippi Valley and northward.

Esox masquinongy Mitchill, "Mirror," 1824, 297, Lake Erie.

Esox masquinongy Mitchill, in Kirtland, Fishes of Ohio, 1838, 194,
Lake Erie.

Esox nobilior Thompson, Proc. Bost. Soc. Nat. Hist., III, 1850, 163,
Lake Champlain.

Esox nobilis Kirtland, Proc. Cleveland Acad. Nat. Sci., 1854, 84, Lake
Erie; name a slip of the pen for *Esox nobilior*.

1321. *Esox masquinongy ohiensis* Kirtland.

Ohio River and its tributaries; Chautauqua Lake, N. Y.

Esox salmoneus Rafinesque, Amer. Month. Mag., III, 1818, 447, Ohio
River; not *Esox salmoneus* Mitchill 1815 = *Synodus fatens*.

Esox ohiensis Kirtland, Proc. Cleveland Acad. Nat. Sci., Feb. 7, 1854,
Mahoning River, Ohio.

³³ The common names of the fishes of the pike family, and of the pike perches, with which they are confused, are too numerous to be given here. As Weed, who gives many of them (Field Mus. Nat. Hist., Zool. leaflet No. 9, 1877) remarks, "There are as many as 80 names for 1 fish and 7 fish for one name."

1322. *Esox masquinongy immaculatus* Garrard. *Great northern pike*.

Lakes of Wisconsin and Minnesota.

Esox immaculatus Garrard, MS; noticed in various fishing journals; Eagle Lake, northern Wisconsin.**Subgenus *ESOX* Linnæus.****1323. *Esox estor* ³⁴ LeSueur. *American pike*.**

Northern North America; eastern United States south to New York and the Ohio River.

Esox estor LeSueur, Jour. Acad. Nat. Sci. Phila., I, 1818, 413, Lake Erie at Buffalo.??*Esox vittatus* Rafinesque, Amer. Month. Mag., III, 1818, 447, Ohio River; mythical; described from hearsay.??*Esox australis* Cuvier and Valenciennes, Hist. Nat. Poiss., XVII, 1846, 323, locality unknown; thought to be Van Diemen's Land (Tasmania).*Esox depraudus* LeSueur in Cuvier and Valenciennes, Hist. Nat. Poiss., XVIII, 1846, 336, Wabash River, New Harmony, Ind.*Esox lugubris* LeSueur, loc. cit., 338, Crab Orchard, Ky.*Esox boreus* Agassiz, Lake Superior, 1850, 317, Lake Superior.*Esox lucoides* Agassiz and Girard, in Herbert Forrester's Fish and Fishing, 1850, 154, Lake Superior.**Subgenus *KENOZA* Jordan and Evermann.****1324. *Esox niger* LeSueur. *Eastern pickerel*; *Green pike*; *Jack*.**

Massachusetts to Florida, in lowland streams and swamps.

Esox reticulatus LeSueur, Jour. Acad. Nat. Sci. Phila., I, 1818, 414, Connecticut River, Adams, Mass.; Philadelphia; name preoccupied in Europe.? *Esox phaleratus* Say in LeSueur, loc. cit., 416, St. Augustine, Fla.; unidentifiable.*Esox niger* LeSueur, loc. cit., 415, South Carolina.*Esox tridecemlineatus* Mitchell, "Mirror," 1825, 361, Oneida Lake, N. Y.**1325. *Esox vermiculatus* LeSueur. *Little pickerel*; *Grass pike*.**

Mississippi Valley and tributaries of Lake Erie and Lake Michigan, south to Mississippi and Arkansas.

Esox vermiculatus LeSueur in Cuvier and Valenciennes, Hist. Nat. Poiss., XVIII, 1846, 333, Wabash River, New Harmony, Ind.*Esox lineatus* LeSueur, loc. cit., 335, Wabash River, New Harmony, Ind.*Esox crassus* Agassiz, Amer. Jour. Sci. Arts, 1854, 308, Tennessee River, Huntsville, Ala.*Esox umbrosus* Kirtland, Proc. Cleveland Acad. Nat. Sci., 1854, 79, small Bay of Rocky River, Rockport, near Cleveland, Ohio.*Esox cypho* Cope, Proc. Acad. Nat. Sci. Phila., XVII, 1865, 78, Waterford, Oakland County, Mich.*Esox porosus* Cope, Trans. Amer. Phil. Soc. Phila., XIII, 1866, 408, Waterford, Oakland County, Mich.; substitute for *cypho* regarded as an inept name.**1326. *Esox americanus* Gmelin. *Barred pickerel*.***Esox lucius americanus* Gmelin, Syst. Nat., 1788, 1390, Long Island, N. Y.; after Schöpfung.*Esox scomberius* Mitchell, Amer. Month. Mag., 1818, 322, Murderers Creek, N. Y.*Esox fasciatus* DeKay, New York Fauna: Fishes, 1842, 224, Murderers Creek and other streams near New York.*Esox ornatus* Girard, "Proc. Bost. Soc. Nat. Hist., V, 1854, 41," Proc. Acad. Nat. Sci., Phila., XXXVII, 1885, 369, 41; Charles River, Mass.*Esox raveneli* Holbrook, Ichth. South Carolina, 1860, 201, Charleston, S. C.³⁴ Not clearly separated from *Esox lucius* L. of Europe.

Family 112. UMBRIDÆ. Mud minnows

Genus 437. UMBRA Müller.

Umbra Kramer, MS., in Muller, Anim. Austr. Infer., 1756; Müller, Abhandl. Akad. Wiss. Wien, 1842, 188 (*crameri*).

Melanura Agassiz, Amer. Jour. Sci. Arts, XVI, 1853, 135 (*M. annulata* Agassiz, not *Eoglossum annulatum* Rafinesque, etc. = *Leuciscus pygmæus* DeKay).

1327. *Umbra limi* (Kirtland). Mud minnow; Dogfish.

Great Lakes region and upper Mississippi Valley in weedy streams and ponds; Lake Champlain to Minnesota. A hardy and attractive aquarium fish.

Hydrargira lima Kirtland, Bost. Jour. Nat. Hist., III, 1840, 277, streams in northern Ohio.

Hydrargyra fusca Thompson, Hist. Vermont, 1842, 137, Lake Champlain.

Hydrargira atricauda DeKay, N. Y. Fauna: Fishes, 1842, 220, Lake Champlain.

1328. *Umbra pygmæa* (DeKay). Striped mud minnow; Eastern mud minnow. Lowland streams and swamps coastwise, from Long Island to the Neuse River, N. C.; locally abundant.

Leuciscus pygmæus DeKay, New York Fauna: Fishes, 1842, 214, Tappan, Rockland County, N. Y.

Fundulus fuscus Ayres, Bost. Jour. Nat. Hist., IV, 1843, 296, Brookhaven, Long Island.

Umbra pygmæa bilineata Shufeldt, Aquatic Life, July, 1917, tributaries of Chesapeake Bay, slight color variation.

Order DD. CYPRINODONTES. (Microcyprini)

Family 113. CYPRINODONTIDÆ. Killfishes

Genus 438. PROFUNDULUS Hubbs.

Profundulus Hubbs, Misc. Pub. 13, Mus. Zool. Univ. Mich., Jan. 18, 1924, 12 (*Fundulus punctatus* Günther).

1329. *Profundulus punctatus* (Günther).

Southern Mexico and Central America in streams and lakes, south to Ecuador.

Fundulus punctatus Günther, Cat., VI, 1866, 320, Chiapas.

Fundulus guatemalensis Günther, loc. cit., 321, Lake Duenas

Fundulus pachycephalus Günther, loc. cit., 321, Lake Atitlan, Guatemala.

1330. *Profundulus labialis* (Günther).

Rivers of Guatemala in Atlantic drainage, Lake Yzabal, Rio Chisoy and Rio San Geronimo.

Fundulus labialis Günther, Cat., VI, 1866, 319, Rio San Geronimo, Guatemala, Yzabal.

1331. *Profundulus oaxacæ* (Meek).

Streams of Oaxaca, Mexico.

Fundulus oaxacæ Meek, Pub., Field Col. Mus., Zool., III, 1902, 90, Oaxaca, Mexico.

1332. *Profundulus candalarius* Hubbs.

Profundulus candalarius Hubbs, Misc. Pub. 13, Mus. Zool., Univ. Mich., Jan. 18, 1924, 15, Candalaria, Guatemala, Rio Chiapas Basin, Atlantic drainage.

Genus 439. CUBANICHTHYS Hubbs.

Cubanichthys Hubbs, Misc. Pub. Univ. Mich. Mus. Zool., No. 16, July 9, 1926, 4 (*Fundulus cubensis* Eigenmann).

1333. *Cubanichthys cubensis* (Eigenmann).

Streams of Pinar del Rio, Cuba.

Fundulus cubensis Eigenmann, Bull. U. S. Fish Com., XXII, 1902 (1903), 222, Pinar del Rio, Cuba.

Genus 440. LEPTOLUCANIA Myers.

Leptolucania Myers, Amer. Mus. Novitates, June 6, 1924, 8 (*Heterandria ommata* Jordan = *Zygoneustes manni* Hay).

1334. *Leptolucania ommata* (Jordan).
Florida; Indian River and Santa Fe River, and their tributaries.
Heterandria ommata Jordan, Proc. U. S. Nat. Mus., VII, 1884, 323,
Indian River, Fla.
Zygonectes manni Hay, loc. cit., VIII, 1885, 555, Yellow Water River,
Fla.
- Genus 441. **CHRIOPEOPS** Fowler.
Chriopeops Fowler, Proc. Acad. Nat. Sci. Phila., LXVIII, 1916, 425
(*Lucania goodei* Jordan).
1335. *Chriopeops goodei* (Jordan).
Waters of the Florida Everglades; locally abundant.
Lucania goodei Jordan, Proc. U. S. Nat. Mus., II, 1879, 240, Arlington
River, Fla., a tributary of the St. Johns.
- Genus 442. **LUCANIA** Girard.
Lucania Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 118 (*Lamia
venusta* Girard); not *Lucanus*, a genus of beetles.
1336. *Lucania parva* (Baird and Girard). *Rainwaterfish*; *Little killifish*.
Atlantic coast from Connecticut to Key West, Texas, and Mexico.
Cyprinodon parvus Baird and Girard, Ninth Smithsonian. Rept., 1854
(1855), 345, Long Island.
Lamia venusta Girard, U. S. Mex. Bound. Surv., Ichth., 1859, 71, pl.
39, figs. 20-23, Indianola, Tex.
Lucania affinis Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 118,
Matamoras, Mexico.
- Genus 443. **FUNDULUS** Lacépède.
Fundulus Lacépède, Hist. Nat. Poiss., V, 1803, 37 (*Fundulus mudfish
Lacépède*=*Cobitis heterochlita* Linnæus).
Hydrargyra Lacépède, loc. cit., 378 (*H. swampina* Lacépède=*Fundulus
majalis* Walbaum).
Boiborys (Broussonet) Goode and Bean, Proc. U. S. Nat. Mus., VIII,
1885, 205 (*Cobitis heterochlita* Linnæus).
Gambusia Jordan and Evermann, Fish. North and Mid Amer.,
1896, 633 (*Fundulus rathbuni* Jordan and Meek).
Galasaccus Fowler, Proc. Acad. Nat. Sci. Phila., LXVIII, 1916, 417
(*Hydrargyra similis* Baird and Girard).
1337. *Fundulus heterochlita* (Linnæus). *Common killifish*; *Minnow*; *Pike
minnow*; *Mummichog*; *Mud-minnow*; *Muddabber*; *Cobbler*.
Coast of Maine to the Rio Grande; Gulf coast; common in brackish
waters.
Cobitis heterochlita Linnæus, Syst. Nat., ed. XII, 1766, 500, Charleston,
S. C.
Pacilia canicola Bloch and Schneider, Syst. Ichth., 1801, 452, Carolinas.
Fundulus mudfish Lacépède, Hist. Nat. Poiss., V, 1803, 37, Carolinas.
Hydrargyra swampina Lacépède, loc. cit., 378, South Carolina.
Fundulus nisorius Cope, Proc. Amer. Phil. Soc. Phila., XI, 1870, 456,
reported from Gaboon, West Africa, appears to be *heterochlita*, wrong
locality.
1338. *Fundulus heterochlita fonticola* Cuvier and Valenciennes.
West Indies.
Fundulus fonticola Cuvier and Valenciennes, Hist. Nat. Poiss., XVIII,
1846, 148 (198), mountain springs of Porto Rico.
Fundulus antillarum Fowler, Proc. Acad. Nat. Sci. Phila., LXVIII,
1916, 418, fig. 1, St. Martins, West Indies.
1339. *Fundulus heterochlita bermudæ* Gunther. *Mangrove minnow*.
Bermudas.
Fundulus bermudæ Günther, Ann. Mag. Nat. Hist., ser. 4, XIV, 1874,
370, Bermudas.
Fundulus rhizophoræ Goode, Amer. Jour. Sci. Arts, XIII, 1877, 298,
Basden Pond, Bermudas.

1340. *Fundulus heteroclitus macrolepidotus* (Walbaum). *Common cobbler; Killifish, Catfish; Dogfish; Kully; Killie; River minnow; Mummichog; Blunthead*
Maine to Virginia; common in brackish waters. Hardly distinct from *F. heteroclitus*, of which it is the northern representative.
Cobitis macrolepidota Walbaum, *Artedi Pisc.*, III, 1792, 11, Long Island; after Schopf.
Cobitis killifish Walbaum, loc. cit., 12, Long Island; after Schopf.
Esox pisciculus Mitchell, *Trans. Lit. Phil. Soc. N. Y.*, I, 1815, 440, New York.
Esox pisculentus Mitchell, loc. cit., 441, New York.
Hydrargyra nigrofasciata LeSueur, *Jour. Acad. Nat. Sci. Phila.*, I, 1817, 133, Newport, R. I.
Fundulus viridescens DeKay, *New York Fauna: Fishes*, 1842, 217, New York.
Fundulus zebra DeKay, loc. cit., 218, New York.
Hydrargyra ornata LeSueur, loc. cit., 131, Delaware River, near Philadelphia.
1341. *Fundulus heteroclitus grandis* Baird and Girard.
Gulf coast of the United States.
Fundulus grandis Baird and Girard, *Proc. Acad. Nat. Sci. Phila.*, VI, 1853, 389, Indianola, Tex.
Fundulus floridensis Girard, loc. cit., XI, 1859, 157, Charlotte Bay, Fla.
Zygonectes funduloides Evermann, *Bull. U. S. Fish Com.*, XI, 1891, 85, pl. 35, fig. 3, Dickinson Bayou, Dickinson, Tex.
1342. *Fundulus heteroclitus badius* Garman.
Gulf of St. Lawrence.
Fundulus heteroclitus badius Garman, *Mem. Mus. Comp. Zool.*, XIX, 1895, Grand Manan.
1343. *Fundulus majalis* (Walbaum). *Killifish; Mayfish; Rockfish; Catfish; Bass killy.*
Cape Cod to Florida, chiefly marine in shallow bays.
Cobitis majalis Walbaum, *Artedi Pisc.*, II, 1792, 12, Long Island; after Mayfish Schopf.
Esox flavulus Mitchell, *Trans. Lit. Phil. Soc. N. Y.*, I, 1815, 439, New York.
Esox zonatus Mitchell, loc. cit., 443, New York.
Hydrargyra trifasciata Storer, *Jour. Bost. Soc. Nat. Hist.*, I, 1837, 417, Massachusetts.
Hydrargyra vernalis Cuvier and Valenciennes, *Hist. Nat. Poiss.*, XVIII, 1846, 154 (206), pl. 531; probably South Carolina.
1344. *Fundulus ocellaris* Jordan and Gilbert.
Pensacola to Fort Myers, Fla.
Fundulus ocellaris Jordan and Gilbert, *Proc. U. S. Nat. Mus.*, V, 1882, 254, Pensacola, Fla.
1345. *Fundulus parvipinnis* Girard.
Coast of California from Point Conception southward to Lower California.
Fundulus parvipinnis Girard, *Proc. Acad. Nat. Sci. Phila.*, VII, 1854, 154, San Diego, Calif.
1346. *Fundulus parvipinnis brevis* Osburn and Nichols.
Magdalena Bay, Lower California.
Fundulus parvipinnis brevis Osburn and Nichols, *Bull. Amer. Mus. Nat. Hist.*, XXV, 1916, 150, fig. 5, Magdalena Bay, Lower California.
1347. *Fundulus pallidus* Evermann.
Galveston Bay near Swan Lake, Tex.
Fundulus pallidus Evermann, *Bull. U. S. Fish Com.*, XI, 1891 (1892), 84, pl. 35, Galveston Bay near Swan Lake, Tex.
1348. *Fundulus vinctus* Jordan and Gilbert.
Coast of Lower California.
Fundulus vinctus Jordan and Gilbert, *Proc. U. S. Nat. Mus.*, V, 1882, 355, Cape San Lucas, Lower California.

1349. *Fundulus confluentus* Goode and Bean.
Streams of Florida.
Fundulus confluentus Goode and Bean, Proc. U. S. Nat. Mus., II, 1879, 118, Lake Monroe, Fla.
1350. *Fundulus albolineatus* Gilbert.
Tennessee Basin in Alabama.
Fundulus albolineatus Gilbert, Bull. U. S. Fish Com., IX, 1889 (1891), 149, Spring Creek, Huntsville, Ala.
Subgenus *GALASACEUS* Fowler.
1351. *Fundulus similis* (Baird and Girard). *Sac-à-lait*.
Coast of the Gulf States.
Hydrargyra similis Baird and Girard, Proc. Acad. Nat. Sci. Phila., VI, 1853, 389, Indianola, Tex.
- Genus 444. *ZYGONECTES* Agassiz.
Zygonectes Agassiz, Amer. Jour. Sci. Arts, 1854, 135 (*Semotilus olwaceus* Raf. = *Semotilus notatus* Raf.).
1352. *Zygonectes notatus* (Rafinesque). *Top minnow*.
Michigan to Alabama, Mississippi, and Texas; generally abundant in ponds and canals.
Semotilus notatus Rafinesque, Ichth. Ohiensis, 1820, 86, tributaries of Ohio River in Kentucky; vaguely described but recognizable.
Pacilia olwac. a Storer, Proc. Bost. Soc. Nat. Hist., II, 1845 (1848), 51, Florence, Ala.
Fundulus tenellus Baird and Girard, Proc. Acad. Nat. Sci. Phila., VI, 1853, 389, Prairie Mer Rouge, La., and Russellville, Ky.
Zygonectes lateralis Agassiz, Amer. Jour. Sci. Arts, XVII, 1854, 353, Mobile, Ala.
Zygonectes zonatus Agassiz, loc. cit., 353, St. Louis, Mo.
Zygonectes pulchellus Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 113, Sugar Loaf Creek, Ark.
Fundulus aureus Cope, loc. cit., XVII, 1865, 78, Sugar Loaf Creek, Ark.
1353. *Zygonectes sciadicus* (Cope).
Middle Missouri River Basin; abundant in ponds and sluggish creeks in eastern Nebraska and southeastern South Dakota.
Fundulus sciadicus Cope, Proc. Acad. Nat. Sci. Phila., XVII, 1865, 78, Platte River, Nebr.
Haplochilus floripinnis Cope, Proc. Amer. Phil. Soc., XIV, 1874, 138, Platte River, at Denver, Colo.
Zygonectes lineatus Garman, Bull. Mus. Comp. Zool., VIII, 1881, 88, northeastern Wyoming.
Zygonectes macdonaldi Meek, Bull. U. S. Fish Com., IX, 1889, 122, pl. 42, fig. 1, Jones Creek, Dixon, Mo., Osage fork of Gasconade River at Mansfield, Mo.
Fundulus scartes Meek, loc. cit., XV, 1895, 347, St. Francis River, Big Bay, Ark.
1354. *Zygonectes chrysotus* (Holbrook).
Coastwise swamps, South Carolina to Florida; rather common.
Fundulus chrysotus Holbrook, in Gunther, Cat., VI, 1866, 317, Charleston, S. C.
Zygonectes henshalli Jordan, Proc. U. S. Nat. Mus., II, 1879, 237, San Sebastian River, Fla.
Gambusia arlingtonia Goode and Bean, loc. cit., 118, Arlington River, Fla.
1355. *Zygonectes cingulatus* (Cuvier and Valenciennes).
New Jersey to Florida, in coastwise swamps, not rare; Escambia River at Flomaton, Ala.
Fundulus cingulatus Cuvier and Valenciennes, Hist. Nat. Poiss., XVIII, 1846, 147 (197), United States.
Zygonectes rubrifrons Jordan, Proc. U. S. Nat. Mus., II, 1879, 237, San Sebastian River, Fla.
Zygonectes auroguttatus Hay, loc. cit., VIII, 1885, 556, Westville, Fla.

1356. *Zygonectes dispar* Agassiz. *Top minnow*.
Northern Ohio to Illinois, south to Mississippi; Maumee, Wabash, Big Black and Pearl Rivers.
Zygonectes dispar Agassiz, Amer. Jour. Sci. Arts, XVII, 1854, 353, creeks opposite St. Louis; Beardstown, Ill.
1357. *Zygonectes nottii* Agassiz. *Star-headed minnow; Top minnow*.
Swamps and streams of Florida and neighboring States; not rare.
Zygonectes nottii Agassiz, Amer. Jour. Sci. Arts, XVII, 1854, 353, Mobile, Ala.
Zygonectes lineolatus Agassiz, loc. cit., 353, Augusta, Ga.
Zygonectes hieroglyphicus Agassiz, loc. cit., 353, Mobile, Ala.
Fundulus zonatus Cuvier and Valenciennes, Hist. Nat. Poiss., XVIII, 1846, 146 (196), interior of South Carolina; not *Esox zonatus* Mitchell.
Zygonectes craticula Goode and Bean, Proc. U. S. Nat. Mus., V, 1882, 433, Elbow Creek, a tributary of Indian River, eastern Florida.
Zygonectes zonifer Jordan and Meek, loc. cit., VII, 1884, 482, Allapaha River, Nashville, Ga.
1358. *Zygonectes guttatus* Agassiz.
Alabama.
Zygonectes guttatus Agassiz, Amer. Jour. Sci. Arts, XVII, 1854, 353, Mobile, Ala.
Zygonectes escambiae Bollman, Proc. U. S. Nat. Mus., IX, 1886, 463, Escambia River, Flomaton, Ala.
1359. *Zygonectes luciae* (Baird).
Atlantic coast from Long Island to Virginia; rare.
Hydrargyra luciae Baird, Ninth Smithson. Rept., 1854, 344, Beesleys Point, N. J.
1360. *Zygonectes pulvereus* Evermann.
Coast of Texas.
Zygonectes pulvereus Evermann, Bull. U. S. Fish Com., XI, 1891 (1892), 85, Dickinson Bayou; Buffalo Bayou at Houston; Oso Creek at Corpus Christi, Tex.
1361. *Zygonectes jenkinsi* Evermann.
Coast of Texas.
Zygonectes jenkinsi Evermann, Bull. U. S. Fish Com., XI, 1891 (1892), 86, Dickinson Bayou, arm of Galveston Bay, Tex.
1362. *Zygonectes limi* (Vaillant).
Fundulus limi Vaillant, Bull. Soc. Philom. (8), VI, 1894, 71, Lower California.
Fundulus meeki Evermann, Proc. Biol. Soc. Wash., XXI, 1908 (Jan. 23), 25, fig. 1, San Ignacio, central Lower California.
1363. *Zygonectes melapleurus* (Gosse). *Ticky-ticky*.
Streams of Jamaica.
Pæcilia melapleura Gosse, Naturalists' Sojourn in Jamaica, 1851, 84, Jamaica.
- Subgenus FONTICOLA Jordan and Evermann.
1364. *Zygonectes seminolis* (Girard).
Florida.
Fundulus seminolis Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 60, Palatka, eastern Florida.
- Subgenus MENONA Jordan and Evermann.
1365. *Zygonectes diaphanus* (LeSueur).
Maine to North Carolina in river mouths; New York to northern Illinois in lakes.
Hydrargyra diaphana LeSueur, Jour. Acad. Nat. Sci. Phila., I, 1817, 130, Saratoga Lake, N. Y.
Hydrargyra multifaciata LeSueur, loc. cit., 131, Saratoga Lake, N. Y.
1366. *Zygonectes diaphanus menona* (Jordan and Copeland).
Streams and lakes of Ohio to Iowa, Minnesota, and South Dakota.
Fundulus menona Jordan and Copeland, Proc. Acad. Nat. Sci. Phila., XXIX, 1877, 68, Catfish River, Dane County, Wis., outlet of Lake Menona, Madison, Wis.

Subgenus GAMBUSINUS Jordan and Evermann.

1367. *Zygonectes rathbuni* (Jordan and Meek).
 Eastern North Carolina, abundant in spring brooks, not descending to salt water.
Fundulus rathbuni Jordan and Meek, Proc. U. S. Nat. Mus., XI, 1888, 356, Reedy Fork, Allemanee Creek, Buffalo Creek, and other tributaries of the Cape Fear River, about Greensboro, N. C.
1368. *Zygonectes extensus* (Jordan and Gilbert).
 Coast of Lower California.
Fundulus extensus Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 355, Cape San Lucas, Lower California.
- Genus 445. *XENISMA* Jordan.
Xenisma Jordan, Bull. Buffalo Soc. Nat. Hist., 1876, 142 (*X. stellifera* Jordan).
1369. *Xenisma catenatum* (Storer). *Studfish*.
 Tennessee and Cumberland Rivers and clear streams of the Ozark Mountains.
Pacilia catenata Storer, Synopsis, 1846, 430, Tennessee River, Florence, Ala.
1370. *Xenisma stellifer* Jordan. *Studfish*.
 Alabama River and tributaries.
Xenisma stellifera Jordan, Ann. Lyc. Nat. Hist. N. Y., XI, 1876, 322, Etowah and Oostanaula Rivers, Rome, Ga.
- Genus 446. *PLANCTERUS* Garman.
Plancterus Garman, Mem. Mus. Comp. Zool., XIX, 1895, 96 (*Fundulus kansæ* Garman).
1371. *Plancterus zebra* (Girard).
 Kansas, western Iowa and South Dakota to Texas and New Mexico, in upper tributaries of Kansas and Red Rivers.
Hydrargyra zebra Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 61, tributaries of Rio Grande "between Fort Defiance and Fort Union, N. Mex.," name preoccupied in *Fundulus*.
Fundulus adinia Jordan and Gilbert, Synopsis, 1883, 335, Rio Grande at Brownsville, Tex.
1372. *Plancterus kansæ* (Garman).
 Kansas.
Fundulus kansæ Garman, Mem. Mus. Comp. Zool., XIX, 1895, 103, pl. 2, fig. 10, Kansas.
Fundulus zebrinus Jordan and Gilbert, Synopsis, 1882, 891; not of Girard.
- Genus 447. *OXYZYGONECTES* Fowler.
Oxyzygonectes Fowler, Proc. Acad. Nat. Sci. Phila., LXVIII, 1916, 425 (*Haplochilus dovii* Günther).
1373. *Oxyzygonectes balboæ* (Fowler).
 Panama; only one example known.
Fundulus balboæ Fowler, Proc. Acad. Nat. Sci. Phila., LXVIII, 1916, 423, fig. 2, Panama.
1374. *Oxyzygonectes dovii* (Günther).
 Coast of Costa Rica.
Haplochilus dovii Günther, Cat., VI, 1866, 316, Punta Arenas, Costa Rica.
- Genus 448. *RIVULUS* Poey.
Rivulus Poey, Memorias, II, 1861, 307, (*R. cylindraceus* Poey).
Cynodonichthys Meek, Field Col. Mus. Zool., V, 1904, 101 (*C. tenuis* Meek).
1375. *Rivulus cylindraceus* Poey.
 Cuba.
Rivulus cylindraceus Poey, Memorias, II, 1861, 308, stream at Mardazo, near Habana, Cuba.
Rivulus marmoratus Poey, Anal. Soc. Española Hist. Nat., IX, 1880, 248, Cuba.

1376. *Rivulus heynei* Nichols.

Haiti.

Rivulus heynei Nichols, Bull. Amer. Mus. Nat. Hist., XXXII, 1914, 143, Haiti.1377. *Rivulus isthmensis* Garman.

Streams of Panama and Costa Rica.

Rivulus isthmensis Garman, Mem. Mus. Comp. Zool., XIX, 1895, 140, Rio San Jose, Costa Rica.1378. *Rivulus brunneus* Meek and Hildebrand.

Panama.

Rivulus brunneus Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X, 1913, 86, Toro Point, Canal Zone, Panama.1379. *Rivulus flabellicauda* Regan

Streams of Costa Rica.

Rivulus flabellicauda Regan, Ann. Mag. Nat. Hist., XIX, 1907, 64, Juan Vinas, Costa Rica.1380. *Rivulus godmanni* Regan.*Rivulus godmanni* Regan, Ann. Mag. Nat. Hist., 7th ser., XIX, 1907, 65, Guatemala.1381. *Rivulus tenuis* (Meek).*Cynodontichthys tenuis* Meek, Field Col. Mus., Zool., V, 1904, 101, El Hule, Oaxaca, Mexico.1382. *Rivulus harti* (Boulenger). *Rainfish; Small guabn.*

Mountain streams of Trinidad and Granada in rain-water pools.

Haplochilus harti Boulenger, Proc. Zool. Soc. Lond., I, 1906, 389, Pl. XXI, fig. 2, Trinidad.1383. *Rivulus chucunaque* Breder.

Tuyra Basin, Pacific slope of Panama.

Rivulus chucunaque Breder (C. M.), Amer. Mus. Novitates, No. CLXXX, July 6, 1925, fig. 6, Rio Chucunaque, near Yavisa, Darien, Panama.*Rivulus chucunaque sucubti* Breder, loc. cit., 8, fig. 7, Rio Sucubti, Darien, Panama.Genus 449. *ADINIA* Girard.*Adinia* Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 117 (*A. multifasciata* Girard).1384. *Adinia multifasciata* Girard.

Gulf Coast, west Florida to Texas; locally abundant in shallow lagoons.

Adinia multifasciata Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 118, Galveston; St. Joseph Island, Indianola, Tex.*Fundulus xenicus* Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 255, Laguna Grande, Pensacola, Fla.; substitute for *multifasciata*, preoccupied in *Fundulus* but not in *Adinia*.Genus 450. *FLORIDICHTHYS* Hubbs.*Floridichthys* Hubbs, Univ. Mich. Mus. Zool. Misc. Pub. No. 16, July 9, 1926, 16 (*Cyprinodon carpio* Günther).1385. *Floridichthys carpio* (Günther).

Florida to Texas.

Cyprinodon carpio Günther, Cat., VI, 1866, 306, America.*Cyprinodon mydrus* Goode and Bean, Proc. U. S. Nat. Mus., V, 1882, 433, Pensacola, Fla.Genus 451. *JORDANELLA* Goode and Bean.*Jordanella* Goode and Bean, Proc. U. S. Nat. Mus., II, 1879, 117 (*Jordanella floridæ* Goode and Bean).1386. *Jordanella floridæ* Goode and Bean.

Streams from Florida to Yucatan.

Jordanella floridæ Goode and Bean, Proc. U. S. Nat. Mus., II, 1879, 117, Lake Monroe, Fla.Genus 452. *CYPRINODON* Lacépède.*Cyprinodon* Lacépède, Hist. Nat. Poiss., V, 1803, 486 (*C. variegatus* Lacépède).*Prinodon* Rafinesque, Anal. Nat., 1815, 88 (*Cyprinodon variegatus* Lacépède).*Encrotes* Gistel, Thierreich, IX, 1848 (*Cyprinodon variegatus* Lacépède).*Trifarcus* Poey, Memorias, II, 1861, 306 (*T. riverendi* Poey).

1387. *Cyprinodon variegatus* Lacépède. Killifish; Porsy minnow; Sheeps-head minnow; Variegated minnow; Mummichog.
Cape Cod to Rio Grande, in bays, rarely entering streams
Cyprinodon variegatus Lacépède, Hist. Nat. Poiss., V, 1803, 486, South Carolina.
Esoc ovinus Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 441, New York.
Lebias ellipsoidea LeSueur, Jour. Acad. Nat. Sci. Phila., II, 1821, 6, Florida.
Lebias rhomboidalis Valenciennes, in Humboldt, Obs. Zool. Phil. Mag., II, 1810 (1811), 100, Lake Pontchartrain, La.
Cyprinodon gibbosus Baird and Girard, Proc. Acad. Nat. Sci. Phila., VI, 1853, 390, Indianola, Tex.
1388. *Cyprinodon riverendi* (Poey).
Cuba and Florida Keys; common at Key West in shallow shore waters.
Trifarcus riverendi Poey, Memorias, II, 1861, 306, Habana; scarcely distinct from *C. variegatus*.
1389. *Cyprinodon dearborni* Meek.
Curaçao, Dutch West Indies.
Cyprinodon dearborni Meek, Field Mus. Nat. Hist., Zool., VII, 1909, 208, Willemstad, Curaçao, Dutch West Indies.
1390. *Cyprinodon felicianus* (Poey).
Cuba.
Trifarcus felicianus Poey, Synopsis, 1867, 412, Habana, Cuba.
1391. *Cyprinodon latifasciatus* Garman.
Parras, Coahuila, Mexico.
Cyprinodon latifasciatus Garman, Bull. Mus. Comp. Zool., VIII, 1881, No. 3, 92, Parras, Coahuila, Mexico.
1392. *Cyprinodon bovinus* Baird and Girard.
Leon Spring in southwestern Texas.
Cyprinodon bovinus Baird and Girard, Proc. Acad. Nat. Sci. Phila., VI, 1853, 389, Leon Spring, Tex.
1393. *Cyprinodon martæ* Steindachner.
Santa Marta, coast of Colombia, South America.
Cyprinodon martæ Steindachner, Ichth. Beitr., IV, 1875, 61, Santa Marta, Rio Cauca.
1394. *Cyprinodon rubrofluvialis* Fowler.
Streams of Texas.
Cyprinodon bovinus rubrofluvialis Fowler, Proc. Acad. Nat. Sci. Phila., LXVIII, 1916, 430, fig. 4, Rio Brazos, Seymour, Tex., and Red River, Tulip and Clarendon, Tex.
1395. *Cyprinodon elegans* Baird and Girard.
Tributaries of the Rio Grande.
Cyprinodon elegans Baird and Girard, Proc. Acad. Nat. Sci. Phila., VI, 1853, 389, Comanche Spring, Tex.
Cyprinodon eximius Girard, loc. cit., XI, 1859, 158, Chihuahua River, Mexico.
1396. *Cyprinodon macularius* Baird and Girard.
Springs and streams of the desert, from southern Nevada to Sonora, locally abundant, often found in Artesian water and desert water holes in southwestern California.
Cyprinodon macularius Baird and Girard, Proc. Acad. Nat. Sci. Phila., VI, 1853, 389, Rio San Pedro, Ariz.
Cyprinodon californiensis Girard, loc. cit., XI, 1859, 158, San Diego County, Calif., probably from Salt Springs in the desert (now Imperial County).
Lucania browni Jordan and Richardson, Proc. U. S. Nat. Mus., XXXIII, 1908, 319, hot spring in southeastern California.
1397. *Cyprinodon nevadensis* Eigenmann.
Death Valley.
Cyprinodon nevadensis Eigenmann, Proc. Calif. Acad. Sci., I, 1889, 270, Saratoga Springs, Death Valley, Inyo County, Calif.

1398. *Cyprinodon baileyi* Gilbert.

Pahrnatagat Valley, Nev.

Cyprinodon macularius baileyi Gilbert, Death Valley Exped., 1893, 233, Pahrnatagat Valley, Nev.

Family 114. EMPETRICHTHYIDÆ

Genus 453. EMPETRICHTHYS⁴⁴ Gilbert.*Empetrichthys* Gilbert, Death Valley Exped., Fishes, 1893, 233 (*E. merriami* Gilbert).1399. *Empetrichthys merriami* Gilbert.

Death Valley in southeastern California.

Empetrichthys merriami Gilbert, Death Valley Exped., in North American Fauna, No. 7, May 31, 1893, 234, Ash Meadows, Amargosa Desert, on boundary between California and Nevada.

Family 115. GOODEIDÆ

Genus 454. ZOOGONETICUS Meek.

Zoogoneticus Meek, Field Col. Mus., Zool., III, 1902, 91 (*Z. diazi* Meek).1400. *Zoogoneticus dugesii* (Bean).

Guanajuato, Mexico.

Fundulus dugesi Bean, Proc. U. S. Nat. Mus., X, 1887, 373, pl. 20, Guanajuato, Mexico.1401. *Zoogoneticus diazi* Meek.

Lakes of Michoacan, Mexico.

Zoogoneticus diazi Meek, Field Col. Mus., Zool., III, 1902, 93, figured in Field Col. Mus., Zool., V, 1904, 114, fig. 32, Lake Patzcuaro, Mexico.*Zoogoneticus miniatus* Meek, Field Mus. Nat. Hist., Zool., V, 1914, 115, fig. 33, Lake Zirahuen, Mexico.1402. *Zoogoneticus robustus* (Bean).

Rio Lerma, Guanajuato.

Fundulus robustus Bean, Proc. U. S. Nat. Mus., XV, 1892, 285, pl. 44, fig. 2, Guanajuato, Mexico.*Zoogoneticus maculatus* Regan, Ann. Mag. Nat. Hist. (7), XIII, 1904, 256, Rio Santiago (Lerma), Mexico.1403. *Zoogoneticus quitzeoensis* (Bean)

Rio Lerma, Mexico.

Platypæcilus quitzeoensis Bean, Proc. U. S. Nat. Mus., XXI, 1899 (Nov. 21, 1898), 540, fig. 1, Lake Quitzeo, Lerma Basin.

Genus 455. GIRARDINICHTHYS Bleeker.

Girardinichthys Bleeker, Act. Soc. Sci. Indo-Nederl., VII, 1860, 481 (*G. innominatus* Bleeker, after a "*Lucania* sp." of Girard).*Limnurgus* Günther, Cat., VI, 1866, 309 (*L. variegatus* Günther = *Girardinichthys* Bleeker).1404. *Girardinichthys innominatus* Bleeker.

Valle of Mexico.

Lucania sp., Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 118, City of Mexico.*Girardinichthys innominatus* Bleeker, Act. Soc. Sci. Indo-Nederl., VII, 1860, 481, City of Mexico.*Limnurgus variegatus* Günther, Cat., VI, 1866, 309, City of Mexico.*Characodon geddesi* Regan, Ann. Mag. Nat. Hist., (7), XIII, 1904, 257, Xochomilco, Morelos, Mexico.

Genus 456. CHARACODON Günther.

Characodon Günther, Cat., VI, 1866, 308 (*C. lateralis* Günther).⁴⁴ This genus apparently a desert derivative of the extinct genus, *Parafundulus*, has probably no affinity with *Orestias* of Peru.

- 1405. *Characodon variatus* Bean.**
Tributaries of Rio Lerma about Guanajuato, Mexico; locally common.
Characodon variatus Bean, Proc. U. S. Nat. Mus., X, 1887, 370, pl. 20, fig. 1, Guanajuato, Mexico.
Characodon ferrugineus Bean, loc. cit., 372, pl. 20, figs. 3 and 4, Guanajuato, Mexico.
Characodon eiseni Rutter, Proc. Calif. Acad. Sci., 2d ser., VI, 1896, 266, branch of the Rio Grande de Santiago at Tepic, Mexico.
- 1406. *Characodon lateralis* Günther.**
Streams of Central America.
Characodon lateralis Günther, Cat., VI, 1866, 308, Central America.
- 1407. *Characodon garmani* Jordan and Evermann.**
Tributaries of Rio Grande in Coahuila, Mexico.
Characodon garmani Jordan and Evermann, Fish. North and Mid. Amer., III, 1898, 2831, Parras, Coahuila, Mexico.
- 1408. *Characodon fuscoides* Jordan and Gilbert.**
Cape San Lucas southward to Colima, Mexico.
Characodon fuscoides Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 354, Cape San Lucas, Lower California.
- Genus 457. LERMICHTHYS Hubbs.**
Lermichthys Hubbs, Univ. Mich. Mus. Zool. Misc. Pub. No. 16, July 9, 1926, 18 (*Characodon multiradiatus* Meek).
- 1409. *Lermichthys multiradiatus* (Meek).**
Rio Lerma Basin, Mexico.
Characodon multiradiatus Meek, Field Col. Mus., Zool., V, 1904, 119, Rio Lerma, Mexico.
Girardinichthys limnurgus Jordan and Evermann, Proc. Calif. Acad. Sci., 4th ser., XVI, Apr. 27, 1927, 502, Lake Lerma, Mexico.
- Genus 458. BALSADICHTHYS Hubbs.**
Balsadichthys Hubbs, Univ. Mich. Mus. Zool., Misc. Pub. No. 16, July 9, 1926, 19 (*Goodea whitei* Meek).
- 1410. *Balsadichthys whitei* (Meek).**
Rio de las Balsas Basin, Mexico.
Goodea whitei Meek, Field Col. Mus., Zool., V, 1904, 137, fig. 40, Rio Balsas, Yantepec, Cuautla, Mexico.
- Genus 459. SKIFFIA Meek.**
Skiffia Meek, Field Col. Mus., Zool., III, 1902, 102 (*S. lermæ* Meek).
- 1411. *Skiffia variegata* Meek.**
Lake Zirahuen, Mexico.
Skiffia variegata Meek, Field Col. Mus., Zool., V, 1904, 143, Lake Zirahuen, Mexico.
- 1412. *Skiffia lermæ* Meek.**
Skiffia lermæ Meek, Field Col. Mus., Zool., III, 1902, 102, Lake Patzcuaro (Rio Lerma), Mexico.
- 1413. *Skiffia bilineata* (Bean).**
Rio Lerma, Guanajuato, Mexico.
Characodon bilineatus Bean, Proc. U. S. Nat. Mus., X, 1887, 371, Guanajuato, Rio Lerma, Mexico.
- 1414. *Skiffia multipunctata* (Pellegrin).**
Rio Lerma system; Lake Chapala, Mexico.
Xenendum multipunctatum Pellegrin, Bull. Mus. Hist. Nat., Paris, 1901, 205, Jalisco, Mexico.
- Genus 460. GOODEA Jordan.**
Goodea Jordan, Proc. U. S. Nat. Mus., II, 1879, 299 (*G. atripinnis* Jordan).
Xenendum Jordan and Snyder, Bull. U. S. Fish Com., XIX, 1899, 128, fig. 9 (1906) (*X. zaleicone* = *Characodon luitpoldi* Steindachner).
- 1415. *Goodea atripinnis* Jordan.**
Tributaries of Rio Lerma, Pacific slope, Mexico.
Goodea atripinnis Jordan, Proc. U. S. Nat. Mus., II, 1879, 299, Leon, Guanajuato, Mexico.

1416. *Goodea calientis* (Jordan and Snyder).
Streams of central Mexico.
Xenodum caliente Jordan and Snyder, Bull. U. S. Fish Com., XIX,
1899, 127, fig. 8, Aguas Calientes, Mexico.
1417. *Goodea luitpoldi* (Steindachner).
Basin of Rio Lerma, Mexico.
Characodon luitpoldi Steindachner, Einige Fischarten Mexicos, 1895, 12,
pl. 3, figs. 3-36, Lago de Patzcuaro, Michoacan, Mexico.
Xenodum zaliscone Jordan and Snyder, Bull. U. S. Fish Com., XIX,
1899 (1901), 128, fig. 9, Laguna de Chapala, near Ocotlan, Jalisco,
Mexico.
1418. *Goodea toweri* Meek.
Rio Panuco, San Luis Potosi, Mexico.
Goodea toweri Meek, Field Col. Mus., Zool., V, 1904, 138, fig. 41, Rio
Verde, San Luis Potosi, Mexico.
1419. *Goodea captiva* Hubbs.
Panuco Basin, Mexico.
Goodea captiva Hubbs, Occ. Papers, Mus. Zool., Univ. Mich., No. 148,
1924, 4; upper tributary of the Rio Panuco at Jesus Maria, Mexico.

Family 116. POECILIIDÆ. Top minnows

- Genus 461. *BELONESOX* Kner.
Belonesox Kner, Sitzungsber., Kais. Akad. Wiss. Wien, 1860, XL, 419
(*B. belizanus* Kner).
1420. *Belonesox belizanus* Kner.
Southern Mexico, Honduras, and Guatemala.
Belonesox belizanus Kner, Sitzungsber., Kais. Akad. Wiss. Wien, XL,
1860, 419, with figure, Belize; largest of the Poeciliidæ.
- Genus 462. *CHAPALICHTHYS* Meek.
Chapalichthys Meek, Field Col. Mus., Zool., III, 1902, 97 (*Characodon
encaustus* Jordan and Snyder).
1421. *Chapalichthys encaustus* (Jordan and Snyder).
Lake Chapala, Mexico.
Characodon encaustus Jordan and Snyder, Bull. U. S. Fish Com., XIX,
1899 (1901), 126, Laguna de Chapala, near Ocotlan, Jalisco, Mexico.
- Genus 463. *HETEROPHALLUS* Regan.
Heterophallus Regan, Ann. Mag. Nat. Hist., (8), XV, 1914, 66 (*H.
rachovii* Regan).
1422. *Heterophallus rachovii* Regan.
Streams of eastern Mexico.
Heterophallus rachovii Regan, Ann. Mag. Nat. Hist., (8), XV, 1914,
66, Fig. A, Vera Cruz, Mexico.
- Genus 464. *GAMBUSIA* Poey. *Guayacones*.
Gambusia Poey, Memorias, I, 1854, 382 (*G. punctata* Poey).
Hemixiphophorus Bleeker, Nat. Tijdschr. Neder.-Indie, XX, 1854, 440;
type not named.
Paragambusia Meek, Field Col. Mus., Zool., V, 1904, 133 (*Gambusia
nicaraguensis* Gunther).
Heterophallina Hubbs (subgenus), Univ. Mich. Mus. Zool. Misc. Pub.
No. 16, July 9, 1926 (*Gambusia regani* Hubbs).
Arthrophallus Hubbs (subgenus), loc. cit., 38 (*Heterandria patruelsi*
Baird and Girard).
Schizophallus Hubbs (subgenus), loc. cit., 40 (*Gambusia holbrookii*
Girard).

- 1423. *Gambusia patruelis* (Baird and Girard).** *Top minnow; Mosquitofish.*
Ditches, marshes, and lagoons, South Atlantic and Gulf States, lowland streams of the southwest; lower Mississippi from St. Louis to Louisiana and the Rio Grande. Introduced from Galveston into Hawaii, California, Formosa, Luzon, etc., a very effective mosquito killer.
Heterandria patruelis Baird and Girard, Proc. Acad. Nat. Sci. Phila., VI, 1853, 390, Rio Sabinal, Rio Nueces, and Elm Creek, Tex.
Heterandria affinis Baird and Girard, loc. cit., 390, Rio Medina and Rio Salado, Tex.
? *Gambusia speciosa* Girard, loc. cit., 1859, 121, Rio San Diego, Nuevo Leon, Mexico.
? *Gambusia gracilis* Girard, loc. cit., 1859, 121, Matamoros, Mexico; name preoccupied.
Gambusia humilis Gunther, Cat., VI, 1866, 334; substitute for *gracilis*.
Haplochilus melanops Cope, Proc. Amer. Phil. Soc., 1870, 457, Neuse River, N. C.
Zygonectes (Micristius) brachypterus Cope, Bull., U. S. Nat. Mus., XX, 1880, 34, Trinity River, Fort Worth, Tex.
Zygonectes inurus Jordan, Proc., U. S. Nat. Mus., 1882, 143, Cache Creek, southern Illinois.
Gambusia modesta Ahl, Blatter für Aquarium- und Terrariakunde, XXXVI, 1923, 220.
Gambusia myersi Ahl, loc. cit., 1925, 36, with figure (substitute for *modesta* preoccupied).
- 1424. *Gambusia holbrooki* (Girard).** *Holbrook's top minnow.*
New Jersey to Florida and Alabama.
Heterandria holbrooki Agassiz, in Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 61, Charleston, S. C.
Haplochilus melanops Cope, Proc. Amer. Phil. Soc., XI, 1870, 457, Neuse River, N. C.
Zygonectes atrilatus Jordan and Brayton, Bull. U. S. Nat. Mus., XII, 1878, 84, Neuse River, Goldsboro, N. C.
- 1425. *Gambusia nobilis* (Baird and Girard).**
Heterandria nobilis Baird and Girard, Proc. Acad. Nat. Sci. Phila., VI, 1853, 390, Leona and Comanche Spring, Rio Grande, Tex.
- 1426. *Gambusia senilis* Girard.**
Rio Grande Basin.
Gambusia senilis Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 122, Chihuahua, Mexico
- Subgenus **HEMIXIPHOPHORUS** Bleeker.
- 1427. *Gambusia gracilis* (Heckel).**
Lowland streams of eastern Mexico.
Xiphophorus gracilis Heckel, Sitzungsber. Kais. Akad. Wiss. Wien, I, 1848, 300, taf. 9, figs. 3 and 4, Orizaba, Mexico.
Gambusia heckeli Bleeker, Fam. Cypr., 1860, 485.
- Subgenus **GAMBUSIA** Poey.
- 1428. *Gambusia punctata* Poey.** *Guajacon.*
Cuba.
Gambusia punctata Poey, Memorias, I, 1854, 384, Rio Almendares, Cuba.
Gambusia picturata Poey, Repertorio, 1868, 410, San Diego de los Baños, Cuba.
Gambusia punctata punctulata Garman, Mem. Mus. Comp. Zool., XIX, 1895, 87, Remedios, Cuba.
- 1429. *Gambusia puncticulata* Poey.**
Streams of Cuba.
Gambusia puncticulata Poey, Memorias, I, 1854, 386, Cuba.
- 1430. *Gambusia melapleura* (Gosse).** *Ticky-ticky.*
Streams of Jamaica; locally common.
Pacilia melapleura Gosse, Naturalist's Sojourn in Jamaica, 1851, 84, Jamaica.

1431. *Gambusia nicaraguensis* Günther.
Southern Mexico and Central America.
Gambusia nicaraguensis Gunther, Cat., VI, 1866, 366, Lake of Nicaragua.
Gambusia dowri Regan, Proc. Zool. Soc. Lond., 1913, 986, Lake Nicaragua.
Gambusia yucalana Regan, Ann. Mag. Nat. Hist., 8th ser., XIV, 1914, 67, Progreso, Yucatan.
1432. *Gambusia mcnieli* Fowler.
Panama
Gambusia mcnieli Fowler, Proc. Acad. Nat. Sci. Phila., LXVIII, 1916, 433, Panama
1433. *Gambusia wrayi* Regan.
Jamaica.
Gambusia wrayi Regan, Proc. Zool. Soc. Lond., 1913, 988, Pl. XCIX, figs. 3, 4 and text fig. 168B, Jamaica.
1434. *Gambusia caymanensis* Regan.
West Indies.
Gambusia caymanensis Regan, Proc. Zool. Soc. Lond., 1913, 990, Grand Cayman, West Indies.
1435. *Gambusia gracilior* Regan.
Jamaica.
Gambusia gracilior Regan, Proc. Zool. Soc. Lond., 1913, 989, Pl. XCIX, figs. 5, 6, and text fig. 168C, Jamaica.
1436. *Gambusia dominicensis* Regan.
Haiti.
Gambusia dominicensis Regan, Proc. Zool. Soc. Lond., 1913, 989, Pl. XCIX, fig. 7 and text fig. 169C, San Domingo.
1437. *Gambusia oligosticta* Regan.
Jamaica.
Gambusia oligosticta Regan, Proc. Zool. Soc. Lond., 1913, 988, Pl. XCIX, figs. 1, 2, and text fig. 169B, Jamaica.
1438. *Gambusia manni* Hubbs.
Bahamas.
Gambusia manni Hubbs, Copeia, 1927, 62, New Providence, one of the Bahamas.
- Subgenus *HETEROPHALLINA* Hubbs.
1439. *Gambusia regani* Hubbs.
Rio Panuco, northwestern Mexico.
Gambusia regani Hubbs, Univ. Mich. Mus. Zool., Misc. Pub. No. 16, July 9, 1926, 28, Forlon, Tamaulipas, Mexico, in the River Forlon.
1440. *Gambusia vittata* Hubbs.
Santa Engracia, Tamaulipas, Mexico.
Gambusia vittata Hubbs, Univ. Mich. Mus. Zool. Misc. Pub. No. 16, July 9, 1926, 26, Rio Forlon, at Forlon, Tamaulipas, Mexico.
1441. *Gambusia panuco* Hubbs.
Rio Panuco, Mexico.
Gambusia panuco Hubbs, Univ. Mich. Mus. Zool. Misc. Pub. No. 16, July 9, 1926, 30, Rio Valles, at Valles, San Luis Potosi, Mexico.
- Genus 465. *BRACHYRHAPHIS* Regan.
Brachyrhaphis Regan, Proc. Zool. Soc. Lond., 1913, 997 (*Gambusia rhabdophora* Regan).
1442. *Brachyrhaphis terrabensis* (Regan).
Pacific streams of Costa Rica.
Gambusia terrabensis Regan, Ann. Mag. Nat. Hist., (7), XIX, 1907, 260, Rio Grande de Terraba, Costa Rica.
1443. *Brachyrhaphis rhabdophora* (Regan).
Costa Rica.
Gambusia rhabdophora Regan, Ann. Mag. Nat. Hist., (8), II, 1908, 457 Volcano of Tenorio and Rio Grande de Terraba, Costa Rica.

1444. *Brachyrhaphis olomina* (Meek).
Valley of the Río Grande de Tarcoles, Costa Rica.
Priapichthys olomina Meek, Field Mus. Nat. Hist., Zool., X, 1912, 114,
Las Cañas, Alajuela, Costa Rica.
1445. *Brachyrhaphis episcopi* (Steindachner).
Isthmus of Panama at Obispo station, and streams of the Pacific slope
of Panama.
Gambusia episcopi Steindachner, Ichth. Beitr., VI, 1878, 9, Obispo near
Panama.
Gambusia latipunctata Meek and Hildebrand, Field Mus. Nat. Hist.,
Zool., X, 1913, 87, Arrijan, Panama.
1446. *Brachyrhaphis cascajalensis* (Meek and Hildebrand).
Streams of Atlantic slope of Panama.
Gambusia cascajalensis Meek and Hildebrand, Field Mus. Nat. Hist.,
Zool., X, 1913, 86, Río Cascajal, Panama.
1447. *Brachyrhaphis parismina* (Meek).
Costa Rica.
Gambusia parismina Meek, Field Mus. Nat. Hist., Zool., X, 1912, 71,
Costa Rica.
- Genus 466. **TRIGONOPHALLUS** Hubbs.
Trigonophallus Hubbs, Univ. Mich. Mus. Zool. Misc. Pub. No. 16,
July 9, 1926, 48 (*T. punctifer* Hubbs).
1448. *Trigonophallus punctifer* Hubbs.
Streams of Pacific coast of Panama.
Trigonophallus punctifer Hubbs, Univ. Mich. Mus. Zool. Misc. Pub.
No. 16, July 9, 1926, 49, Quibari Creek, Río Secamola at Kakintin.
- Genus 467. **PRIAPICHTHYS** Regan.
Priapichthys Regan, Proc. Zool. Soc. Lond., 1913, 991 (*Gambusia
annectans* Regan).
1449. *Priapichthys annectens* (Regan).
Streams of Atlantic slope of Costa Rica.
Gambusia annectens Regan, Ann. Mag. Nat. Hist., (7), XIX, 1907,
250, Costa Rica.
1450. *Priapichthys annectens hesperis* Hubbs.
Streams of the Pacific slope of Costa Rica.
Priapichthys annectens hesperis Hubbs, Univ. Mich. Mus. Zool. Misc.
Pub. No. 13, Jan. 18, 1924, 22, Río María Aguilar, Río Grande de
Tarcoles, and their mountain tributaries.
1451. *Priapichthys huberi* Fowler.
Nicaragua.
Priapichthys huberi Fowler, Proc. Acad. Nat. Sci. Phila., LXXV, 1923,
27, Marceligo Creek, tributary of the Tunký River, at Miranda,
Nicaragua.
- Genus 468. **PANAMICHTHYS** Hubbs.
Panamichthys Hubbs, Univ. Mich. Mus. Zool. Misc. Pub. No. 13,
Jan. 18, 1924, 8 (*Priapichthys panamensis* Meek and Hildebrand).
1452. *Panamichthys panamensis* (Meek and Hildebrand).
Priapichthys panamensis Meek and Hildebrand, Field Mus. Nat. Hist.,
Zool., X, 1916, 322, Panama.
- Genus 469. **PSEUDOXIPHOPHORUS** Bleeker.
Pseudoxiphophorus Bleeker, Ichth. Indice Prodr. Cypr., in Acata Societ.
Scient. Indo-Neer., VII, 1859, 483 (*Xiphophorus bimaculatus* Heckel).
Paeclodes Steindachner, Sitzungsber. Kais. Akad. Wiss. Wien, XLVIII,
1863, 176 (*P. bimaculatus* Steindachner).
1453. *Pseudoxiphophorus bimaculatus* (Heckel).
Central Mexico; Río Blanco, Orizaba.
Xiphophorus bimaculatus Heckel, Sitzungsber. Kais. Akad. Wiss. Wien,
I, 1848, pt. 3, 169, taf. 6, figs 1 and 2, Mexico.
Pseudoxiphophorus reticulatus Troschel, in Miller's Reisen Vereinigten
Staaten, Canada, Mexico, III, 1865, 638, no locality.

1454. *Pseudoxiphophorus bimaculatus tæniatus* Regan.
Streams of the Atlantic slope of southeastern Mexico.
Pseudoxiphophorus bimaculatus tæniatus Regan, Ann. Mag. Nat. Hist., (7), XVI, 1905, 303, Rio Touto and San Domingo de Guzman.
1455. *Pseudoxiphophorus bimaculatus jonesi* (Günther).
Streams of southeastern Mexico.
Molleneis jonesi Günther, Ann. Mag. Nat. Hist., (4), XIV, 1874, 371,
Lake Alehuaca, Huamanita, Mexico.
Pseudoxiphophorus pauciradiatus Regan, Ann. Mag. Nat. Hist., (7),
X, 1904, 14, 296, Orizaba, Mexico.
- Genus 470. **HETERANDRIA** Agassiz.
Heterandria Agassiz, Amer. Jour. Sci. Arts, XVI, 1853, 135 (*H. formosus*
Agassiz MS.; *H. holbrooki* Agassiz MS.).
1456. *Heterandria formosa* Agassiz.
Streams of South Carolina to Florida; one of the smallest of fishes.
Heterandria formosa Agassiz, in Girard, Proc. Acad. Nat. Sci. Phila.,
XI, 1859, 62, Charleston, S. C.; Palatka, Fla
- Genus 471. **PRIAPELLA** Regan.
Priapella Regan, Proc. Zool. Soc. Lond., 1913, 992 (*Gambusia bonita*
Meek).
1457. *Priapella bonita* (Meek).
Streams of western Mexico; Rio Papaloapam, Motzorongo.
Gambusia bonita Meek, Field Col. Mus., Zool., V, 1904, 132, fig. 39,
104, Refugio, Vera Cruz, Mexico.
- Genus 472. **ALLOGAMBUSIA** Hubbs.
Allogambusia Hubbs, Univ. Mich. Mus. Zool. Misc. Pub. No. 13, Jan.
18, 1924, 8 (*Gambusia tridentiger* Garman).
1458. *Allogambusia cana* (Meek and Hildebrand).
Streams of the Pacific slope of Panama.
Gambusia cana Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X,
1913, 87, Rio Satiganti, Cana, Panama.
1459. *Allogambusia tridentiger* (Garman).
Rivers of Panama.
Gambusia tridentiger Garman, Mem. Mus. Comp. Zool., XIX, 1895, 89
(Pl. IV, fig. 10, teeth), rivers of Panama.
- Genus 473. **TOXUS** Eigenmann.
Toxus Eigenmann, Bull. U. S. Fish Com., XXII, 1902 (1903), 226 (*T.*
riddlei Eigenmann).
1460. *Toxus riddlei* Eigenmann.
Streams of western Cuba.
Toxus riddlei Eigenmann, Bull. U. S. Fish Com., XXII, 1902 (1903),
226, San Cristobal, Cuba.
1461. *Toxus cubensis* (Eigenmann).
Streams of western Cuba.
Heterandria cubensis Eigenmann, Bull. U. S. Fish Com., XXII, 1902
(1903), 227, Los Palacios, Cuba.
- Genus 474. **GLARIDICHTHYS** Garman.
Glaridodon Garman, Mem. Mus. Comp. Zool., XIX, 1895, 40 (*latidens*);
name preoccupied.
Glaridichthys Garman, Amer. Nat., XXX, 1896, 232 (same type).
1462. *Glaridichthys uninotatus* (Poey).
Cuba.
Girardinus uninotatus Poey, Memorias, II, 1861, 309, Cuba.
1463. *Glaridichthys torralbasi* Eigenmann.
Streams of Pinar del Rio, Cuba.
Glaridichthys torralbasi Eigenmann, Bull. U. S. Fish Com., XXII, 1902
(1903), 225, fig. 4, Pinar del Rio, Cuba.
1464. *Glaridichthys falcatus* Eigenmann.
Streams of western Cuba.
Glaridichthys falcatus Eigenmann, Bull. U. S. Fish Com., XXII, 1902
(1903), 224, San Cristobal, Palacios, Pinar del Rio, Cuba.

- Genus 475. GIRARDINUS** Poey.
Girardinus Poey, Memorias, I, 1854, 383 (*G. metallicus* Poey).
- 1465. *Girardinus metallicus* Poey.**
 Streams of Cuba.
Girardinus metallicus Poey, Memorias, I, 1854, 387, Cuba.
Girardinus denticulatus Garman, Mem. Mus. Comp. Zool., XIX, 1895, 47, Remedios, Cuba.
Girardinus creolus Garman, loc. cit., 47, Cuba.
Girardinus garmani Eigenmann, Bull. U. S. Fish Com., XXII, 1902 (1903), 296, Pinar del Rio, Palacios, Cuba.
- Genus 476. DARIENICHTHYS** Hubbs.
Darienichthys Hubbs, Univ. Mich. Mus. Zool., Misc. Pub. No. 13, Jan. 18, 1924, 8 (*Gambusia darienensis* Meek and Hildebrand).
- 1466. *Darienichthys darienensis* (Meek and Hildebrand).**
 Streams of Pacific slope, Panama.
Gambusia darienensis Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X, 1913, 116, 88, Rio Capeti (Tuyra River Basin), Panama.
- Genus 477. PÆCILIOPSIS** Regan.
Pæciliopsis Regan, Proc. Zool. Soc. Lond., 1913, 996 (*Pæcilia presidionis* Jordan and Culver).
Leptorhaphis Regan, loc. cit., 980, 998 (*Gambusia infans* Woolman).
- 1467. *Pæciliopsis occidentalis* (Baird and Girard).**
 Gila Basin, Ariz., and basins of Yaqui and Sonora Rivers, Sonora.
Heterandria occidentalis Baird and Girard, Proc. Acad. Nat. Sci. Phila., VI, 1853, 390, Rio Santa Cruz, near Tucson, Ariz.
Girardinus sonoriensis Girard, loc. cit., XI, 1859, 120, San Bernardino Creek, a tributary of the Rio Yaqui, Sonora.
- 1468. *Pæciliopsis infans* (Woolman).**
 Rio Lerma, Salamanca, Mexico.
Gambusia infans Woolman, Bull. U. S. Fish Com., XIV, 1894, 62, Rio Lerma, Salamanca, Mexico.
- 1469. *Pæciliopsis balsas* Hubbs.**
 Balsas Basin, Mexico.
Pæciliopsis balsas Hubbs, Univ. Mich. Mus. Zool. Misc. Pub. No. 16, July 9, 1926, 66, Rio Balsas, Guerrero, Mexico.
- 1470. *Pæciliopsis latidens* (Garman).**
 Chihuahua.
Glaridodon latidens Garman, Mem. Mus. Comp. Zool., XIX, 1895, 40, Chihuahua, Mexico.
- 1471. *Pæciliopsis fasciata* (Meek).**
 Atlantic streams of southern Mexico.
Gambusia fasciata Meek, Field Col. Mus., Zool., V, 1904, 129, fig. 37, San Geronimo, Oaxaca, Mexico.
- 1472. *Pæciliopsis turrubarensis* (Meek).**
 Costa Rica.
Gambusia turrubarensis Meek, Field Mus. Nat. Hist., Zool., X, 1912, 71, Rio Turrubara, Costa Rica.
Heterandria colombianus Eigenmann and Henn, Indiana Univ. Stud., No. 8, 1912, 27, brackish water, mouth of Rio Dagua, Colombia.
Priapichthys fosteri Hildebrand, Bull. U. S. Bur. Fish., XLI, 1925, 260, figs. 14 and 15, Rio Lempa, San Marcos, El Salvador, Central America.
- 1473. *Pæciliopsis presidionis* (Jordan and Culver).**
 Rio Presidio, Sinaloa, Mexico.
Pæcilia presidionis Jordan and Culver, in Jordan, Fishes of Sinaloa, Proc., Calif. Acad. Sci., V, 1895, 413, pl. 29, Rio Presidio, Sinaloa, Mexico.
- Genus 478. PÆCILISTES** Hubbs.
Pæcilistes Hubbs, Univ. Mich. Mus. Zool. Misc. Pub. No. 16, July 9, 1926, 68 (*Heterandria lutzi* Meek).

1474. *Pæcilistes pleurospilus* (Günther).
Streams of Guatemala.
Gerrardinus pleurospilus Günther, Cat., VI, 1866, 353, Lake Dueñas, Guatemala.
Heterandria lutzi Meek, Field Col. Mus., Zool., V, 1904, 148, fig. 47, Orizaba, Mexico.
Præpichthys letona Hildebrand, Bull. U. S. Bur. Fish., XLI, 1925, 258, Rio San Miguel, San Salvador.
- Genus 479. *AULOPHALLUS* Hubbs.
Aulophallus Hubbs, Univ. Mich. Mus. Zool. Misc. Pub. No. 16, July 9, 1926, 69 (*Pæcilia elongata* Gunther).
1475. *Aulophallus elongatus* (Gunther).
Panama, a large marine species quite unlike *Pæcilia* in habits.
Pæcilia elongata Gunther, Cat., VI, 1866, 342, Panama.
- Genus 480. *PHALLICHTHYS* Hubbs.
Phallichthys Hubbs, Univ. Mich. Mus. Zool. Misc. Pub. 13, Jan. 18, 1924, 10, (*Pæciliopsis isthmensis* Regan).
1476. *Phallichthys amates* (Miller).
Motagua Basin, Guatemala.
Pæcilia amates Miller, Bull. Amer. Mus. Nat. Hist., XXIII, 1907, 108, fig. 1, pond and its outlet, Los Amates, an affluent of the Motagua River, Guatemala.
1477. *Phallichthys pittieri* (Meek).
Costa Rica.
Pæcilia pittieri Meek, Field Mus. Nat. Hist., Zool., X, 1912, 71, La Junta, Costa Rica.
Pæciliopsis isthmensis Regan, Proc., Zool. Soc. Lond., 1913, 997, Pl. C, figs. 3, 4, and text fig. 171B, Colon, Panama.
- Genus 481. *XENOPHALLUS* Hubbs.
Xenophallus Hubbs, Mus. Zool. Univ. Mich. Misc. Pub. 13, Jan. 18, 1924, 10 (*Gambusia umbratilis* Meek.).
1478. *Xenophallus umbratilis* (Meek).
Streams of Costa Rica.
Gambusia umbratilis Meek, Field Mus. Nat. Hist., Zool., X, 1912, 70, Costa Rica.
- Genus 482. *PÆCILIA* Schneider.
Pæcilia Schneider, ed. Bloch, Syst. Ichth. 1801, 452 (*P. vivipara* Bloch and Schneider); not *Pæcilus* of genus of beetles.
Alazon Gistel, Thierreich, X, 1848 (*Pæcilia vivipara* Schneider); substitute for *Pæcilia*, regarded as preoccupied.
Acropæcilia Hilgendorf, Sitzungsab. Naturf. Freunde, 1889, 52 (*Pæcilia tridens* Hilgendorf).
Neopæcelia Hubbs, Univ. Mich. Mus. Zool., Misc. Pub. 13, 1924 (*N. holacanthus* Hubbs).
1479. *Pæcilia vivipara* Bloch and Schneider.
Rivers of Brazil; Guiana; Martinique; Porto Rico.
Pæcilia vivipara Bloch and Schneider, Syst. Ichth., 1801, 452, pl. 86, fig. 2, Surinam.
Pæcilia surinamensis Valenciennes, Humboldt, Observ. Zool., II, 1817, 158, pl. 51, fig. 1, Surinam.
Pæcilia schneideri Cuvier and Valenciennes, Hist. Nat. Poiss., XVIII, 1846, 102 (135), Surinam.
Neopæcilia holacanthus Hubbs, Univ. Mich. Mus. Zool., Misc. Pub. No. 13, Jan. 18, 1924, 11, based on material recorded as *Pæcilia vivipara* Evermann and Marsh, Bull., U. S. Fish Com., XX, 1900, first part (1902), 97, from Porto Rico (Ponce, Fijaro, Arroyo, and Hucares).
1480. *Pæcilia tridens* Hilgendorf.
Streams of Haiti.
Pæcilia (*Acropæcilia*) *tridens* Hilgendorf, Sitzungsab. Naturf. Freunde, 1889, 52, Port au Prince.

Genus 483. LIMIA Poey.

Limia Poey, Memorias, I, 1854, 388 (*L. cubensis* Poey=*Pæcilia vittata* Guichenot).

1481. *Limia heterandria* Regan.

Santo Domingo.

Limia heterandria Regan, Proc. Zool. Soc. Lond., 1913, 1017, Pl. CI, "Venezuela"; locality probably wrong.

Heterandria zonata Nichols, Bull. Amer. Mus. Nat. Hist., XXXIV, 1915, 603, fig. 3, Santo Domingo.

1482. *Limia vittata* (Guichenot). *Faguato*; *Guayra*.

Streams of Cuba.

Pæcilia vittata Guichenot, in Ramon de la Sagra, Hist. Nat. Cuba, Poiss., 1853, 146, pl. 5, fig. 1, Cuba.

Limia cubensis Poey, Memorias, I, 1854, 388, Habana.

Limia pavonina Poey, Enumeratio, 1876, 142, Habana.

1483. *Limia perugiæ* (Evermann and Clark).

Santo Domingo.

Platyæcilus perugiæ Evermann and Clark, Proc. U. S. Nat. Mus., XXX, 1906, 851, Santo Domingo.

1484. *Limia caudofasciata* Regan.

Jamaica.

Limia caudofasciata Regan, Proc., Zool. Soc. Lond., 1913, 1017, Jamaica.

1485. *Limia nigrofasciata* Regan.

Limia nigrofasciata Regan, Proc., Zool. Soc. Lond., 1913, 1015, Pl. CI, figs. 1, 2, 1913, Haiti.

Limia arnoldi Regan, loc. cit., 1016, Miragoâne, Haiti; young of *nigrofasciata*.

1486. *Limia ornata* Regan.

Limia ornata Regan, Proc. Zool. Soc. Lond., 1913, 1016, Haiti.

1487. *Limia dominicensis* (Cuvier and Valenciennes).

Santo Domingo and Barbados.

Pæcilia dominicensis Cuvier and Valenciennes, Hist. Nat. Poiss., XVIII, 1846, 99 (131), pl. 525, Santo Domingo.

Pæcilia melanogaster Gunther, Cat., VI, 1866, 345, locality unknown.

Platyæcilus dominicensis Evermann and Clark, Proc. U. S. Nat. Mus., XXX, 1906, 852, fig. 2, streams in San Francisco Mountains, Santo Domingo.

1488. *Limia melanonotata* Nichols and Myers.

Santo Domingo.

Limia melanonotata Nichols and Myers, Amer. Mus. Novitates, No. 79, 1923, 1, Hispaniola.

1489. *Limia versicolor* (Günther).

Rivers of Haiti.

Gyrardinus versicolor Günther, Cat., VI, 1866, 352, Santo Domingo.

Genus 484. LEBISTES De Filippi

Lebistes de Filippi, Arch. Zool. Anat. Fisiol., I, 1862, 69 (*L. pæciloides* de Filippi).

Acanthophaelus Eigenmann, Proc. U. S. Nat. Mus., XXXII, 1907, 426 (*Pæcilia reticulatus* Peters).

1490. *Lebistes reticulatus* (Peters). *Milmons*; *Bellyfish*; *Guppy* and *rainbow-fish* of aquarists.

Pools and streams of Barbados, Trinidad, and Venezuela.

Pæcilia reticulata Peters, Monatsber. Akad. Wiss. Berlin, 1859, 412, Caracas, Venezuela.

Lebistes pæciloides de Filippi, Arch. Zool. Anat. Fisiol., I, 1861, 69, Pl. IV, fig. 6, Barbados.

Gyrardinus guppis Günther, Cat., VI, 1866, 353, Trinidad; Venezuela.

Acanthophaelus melanzonus Eigenmann, Ann. Carnegie Mus., VI, 1909, 51, Georgetown Trenches, British Guiana.

Genus 485. MOLLINIENESIA LeSueur.

Molliniesia LeSueur, Jour. Acad. Nat. Sci. Phila., II, 1821, 2 (*Molliniesia latipinna* LeSueur).

1491. *Mollienesia latipinna* LeSueur. *Mudfish*.
 South Carolina to northern Mexico, in lowland swamps and streams.
Mollienesia latipinna LeSueur, Jour. Acad. Nat. Sci. Phila., II, 1821, 3,
 New Orleans.
Pæcilia multilineata LeSueur, loc. cit., 4, New Orleans.
Pæcilia lineolata Girard, U. S. Mex. Bound. Surv., Ichth., 1859, 70,
 pl. 35, figs. 9 to 11, Rio Grande near Brownsville, Tex.
Lima pæciloides Girard, loc. cit., 70, pl. 38, figs. 8 to 14, Indianola, Tex.
Lima matamorensis Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859,
 117, Matamoras.
1492. *Mollienesia gracilis* Regan.
 Lake Peten, Guatemala.
Mollienesia petenensis Gunther, Cat., VI, 1866, 348, Lake Peten; not
Pæcilia petenensis Günther, also a *Mollienesia*.
Mollienesia gracilis Regan, Proc. Zool. Soc. Lond., 1913, 1012; substitute
 name.
1493. *Mollienesia petenensis* (Gunther).
 Lake Peten, Guatemala.
Pæcilia petenensis Günther, Cat., VI, 1866, 342, Lake Peten, Guatemala;
 not *Mollienesia petenensis* Gunther, loc. cit., 348.
1494. *Mollienesia formosa* (Girard).
 Mexico; Lake Alcohuaca, Huamantla, Mexico; Palo Alto.
Lima formosa Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 115, Palo
 Alto, Mexico.
1495. *Mollienesia spilura* (Günther).
 Streams of Central America.
Pæcilia spilurus Günther, Cat., VI, 1866, 345, Central America.
1496. *Mollienesia velifera* Regan.
 Yucatan.
Mollienesia velifera Regan, Ann. Mag. Nat. Hist., 8th ser., XIII, 1914,
 338, Progreso, Yucatan.
1497. *Mollienesia spheonops* (Cuvier and Valenciennes).
 Lowland streams of Mexico and Central America.
Pæcilia spheonops Cuvier and Valenciennes, Hist. Nat. Poiss., XVIII,
 1836, 98 (130), 525, Vera Cruz.
Mollienesia fasciata Muller and Troschel, Monatsber. Akad. Wiss. Berlin,
 1844, 36, Mexico.
Pæcilia mexicana Steindachner, Sitzungsb., Kais. Akad. Wiss. Wien,
 XLVIII, 1863, 178, taf. 4, fig. 2, southern Mexico.
Pæcilia thermalis Steindachner, loc. cit., 181, warm springs in Central
 America.
Xiphophorus gillii Kner and Steindachner, Abhandl. Bayer. Akad.
 Wiss., X, 1864, 28, taf. 4, fig. 1 (1866), Rio Chagres, Panama.
Gambusia modesta Troschel, in Müller's Reisen Vereinigten Staaten,
 Canada and Mexico, III, 1865, 639, Mexico.
Pæcilia chisoyensis Gunther, Cat., VI, 1866, 342, Rio Chisoy, Vera
 Paz.
Gambusia plumbea Troschel, loc. cit., III, 1865, 640, Mexico.
Pæcilia dovii Gunther, loc. cit., VI, 1866, 344, Lake Nicaragua; Lake
 Amatitlan.
Platyæcilius mentalis Gill, Proc. Acad. Nat. Sci. Phila., XXVIII, 1876,
 335, Isthmus of Panama.
Pæcilia boucardi Steindachner, Ichth. Beitr., VI, 1878, 8, Colon (or
 Aspinwall).
Pæcilia limantouri Jordan and Snyder, Bull. U. S. Fish Com., XIX,
 1899, 129, fig. 10, Rio Tamesin, Tampico, Mexico.
Pæcilia butleri Jordan, Proc. U. S. Nat. Mus., XI, 1888, 330, Rio
 Presidio, Mazatlan.
Platyæcilius tropicus Meek, Field Col. Mus., Zool., VII, 1907, 146, Tur-
 rialba, Costa Rica.
Pæcilia tenuis Meek, loc. cit., 147, San Jose, Costa Rica.
Pæcilia salvatoris Regan, Ann. Mag. Nat. Hist., (7), XIX, 1907, 65,
 Salvador.
Pæcilia spilota Regan, loc. cit., 8th ser., II, 1908, 460, San Jose.

1498. *Mollienesia sphenops cuneata* (Garman).
Turbo, Gulf of Darien.
Pacilia cuneata Garman, Mem., Mus. Comp. Zool., XIX, 1895, 62, Pl. V, fig. 3, teeth, Turbo, Gulf of Darien.
1499. *Mollienesia sphenops vandepolli* (Van Lindth de Jeude).
Tropical America, abundant in fresh-water pools.
Pacilia vandepolli Van Lindth de Jeude, Notes, Leyden Mus., IX, 1887, 137, Freshwater, Curaçao.
Pacilia vandepolli arubensis Van Lindth de Jeude, loc. cit., 138, Aruba, one of the Leeward Islands.
- Genus 486. **ALFARO** Meek.
Petalosoma Regan, Ann. Mag. Nat. Hist., (8), II, 1908, 462 (*P. cultratum* Regan, name preoccupied).
Alfaro Meek, Field Mus. Nat. Hist., Zool., X, September, 1912, 72 (*A. acutiventris* Meek).
Petalurichthys Regan, Ann. Mag. Nat. Hist., X, November 1912, 494 (*Petalosoma cultratum* Regan; substitute for *Petalosoma* preoccupied).
1500. *Alfaro cultratus* (Regan).
Streams of Costa Rica.
Petalosoma cultratum Regan, Ann. Mag. Nat. Hist., XI, 1908, 458, Rio Iroquois, Costa Rica.
Alfaro acutiventris Meek, Field Mus. Nat. Hist., Zool., X, 1912, 72, Costa Rica.
- Genus 487. **PLATYPÆCILUS** Günther.
Platypæcilus Günther, Cat., VI, 1866, 350 (*P. maculatus* Günther).
1501. *Platypæcilus maculatus* Günther. *Moonfish of the aquarists*.
Mexico.
Platypæcilus maculatus Günther, Cat., VI, 1866, 350, Mexico.
Platypæcilus variatus Meek, Field Col. Mus., Zool., V, 1904, 145, 146, San Luis Potosi, Mexico.
Platypæcilus maculatus immaculatus Myers, Copeia, No. 113, Dec. 20, 1922, 89, a form developed in an aquarium, therefore without standing in scientific nomenclature.
1502. *Platypæcilus couchianus* (Girard).
Rio Grande Basin.
Limia couchiana Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 116, Rio San Juan, at Cadereita and Monterey, in Nuevo Leon, Mexico.
- Genus 488. **XIPHOPHORUS** Heckel.
Xiphophorus Heckel, Sitzungsab. Kais. Akad. Wiss. Wien, I, 1848, pt. 3, 163 (*X. helleri* Heckel).
1503. *Xiphophorus helleri* Heckel. *Swordtail*.
Lowland streams of southern Mexico and Guatemala, of Atlantic drainage.
Xiphophorus helleri Heckel, Sitzungsab. Kais. Akad. Wiss. Wien, I, 1848, pt. 3, 163, pl. 5, Rio Chisoy, Guatemala.
Xiphophorus jalapæ Meek, Field Col. Mus., Zool., III, 1902, 107, Jalapa.
1504. *Xiphophorus helleri guntheri* (Jordan and Evermann)
Rivers of eastern slope of Guatemala.
Xiphophorus guntheri Jordan and Evermann, Fish. North and Mid. Amer., 1896, 702, Rio Chisoy (Usumacinta), Guatemala.
1505. *Xiphophorus helleri strigatus* (Regan).
Atlantic slope of southern Mexico.
Xiphophorus strigatus Regan, Ann. Mag. Nat. Hist., (7), XIX, 1907, 65; streams of Atlantic slope of southern Mexico; Cordoba, Oaxaca, etc.
1506. *Xiphophorus helleri rachovii* (Regan).
Atlantic slope of Guatemala.
Xiphophorus rachovii Regan, Ann. Mag. Nat. Hist., (8), VIII, 1911, 374, Puerto Barrios between Lake Yzabal and Rio Motagua.

1507. *Xiphophorus helleri brevis* (Regan).
British Honduras.
Xiphophorus brevis Regan, Ann. Mag. Nat. Hist., (7), XIX, 1907, 65,
British Honduras.
1508. *Xiphophorus montezumæ* Jordan and Snyder.
Rio Panuco, eastern Mexico.
Xiphophorus montezumæ Jordan and Snyder, Bull. U. S. Fish Com.,
XIX, 1899 (1900), 131, fig. 11, Rio Panuco, Mexico.

Family 117. ANABLEPIDÆ. Four-eyed fishes

- Genus 489. ANABLEPS (Gronow) Scopeli.
Anableps Gronow, in Scopeli, Introd. Hist. Nat., 1777, 450 (no type
mentioned; *A. anableps* L. understood).
1509. *Anableps anableps* Linnæus. *Cuatro ojos*; *Four-eyed fish*.
Trinidad to Brazil; in streams.
Anableps anableps Linnæus, Syst. Nat., ed. 9, 1756, 55.
Anableps tetraphthalmus Bloch, Naturgesch. Ausl. Fische, VIII, 1794,
7, pl. 361.
1510. *Anableps dowei* Gill. *Cuatro ojos*.
Streams of Central America, locally common (Salvador-Chiapas,
Guatemala)
Anableps dowei Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 4, La
Union, Salvador.

Family 118. AMBLYOPSIDÆ. Cave blindfishes

- Genus 490. CHOLOGASTER Agassiz.
Chologaster Agassiz, Amer. Jour. Sci. Arts, XVI, 1853, 135 (*C. cornutus*
Agassiz)
1511. *Chologaster cornutus* Agassiz. *Fish of the rice ditches of South Atlantic*
States.
Lowland swamps of the Southern States, from the Dismal Swamp to
the Okefinokee Swamp; locally very abundant.
Chologaster cornutus Agassiz, Amer. Jour. Sci. Arts, XVI, 1853, 135,
ditch in a rice field in South Carolina.
1512. *Chologaster avitus* Jordan and Jenkins. *Fish of Dismal Swamp*.
Streams and swamps from southeast Virginia southward, probably
varying into *C. cornutus*.
Chologaster avitus Jordan and Jenkins, Proc. U. S. Nat. Mus., XI, 1888,
356, pl. 44, fig. 8, outlet of Lake Drummond, Dismal Swamp, near
Suffolk, Va.
- Genus 491. FORBESELLA Jordan and Evermann.
Forbesella Jordan and Evermann, Proc., Calif. Acad. Sci., 4th ser., XVI,
1927 (Apr. 27), 503 (*Chologaster papilliferus* Forbes).
This genus stands between the ancient type of *Chologaster* well colored
and with developed eyes, and the colorless blind fishes of the caves
of the middle west. From *Chologaster*, *Forbesella* differs in the pres-
ence of tactile papillæ as in *Amblyopsis*.
1513. *Forbesella papillifera* (Forbes). *Cavefish*.
Cave springs, Union and Pope Counties, Ill.
Chologaster papilliferus Forbes, Amer. Nat., XVI, January, 1882, 1,
cave spring in Union County, southern Illinois.
1514. *Forbesella agassizii* (Putnam).
Underground streams of Tennessee and Kentucky.
Chologaster agassizii Putnam, Amer. Nat., VI, 1872, 30, Pl. 2, figs.
4, 4a, 4b, from a well at Lebanon, Tenn.
- Genus 492. TYPHLICHTHYS Girard.
Typhlichthys Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 63 (*T.*
subterraneus Girard).

1515. *Typhlichthys subterraneus* Girard. *Small blindfish*.
Subterranean streams in limestone regions of Indiana, Kentucky, Tennessee, Missouri, and Alabama.
Typhlichthys subterraneus Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 63, well at Bowling Green, Ky.
1516. *Typhlichthys osborni* Eigenmann.
Horse Cave, near Mammoth Cave, Ky.
Typhlichthys osborni Eigenmann, Biol. Bull., VIII, 1905, 65, figs. 3 and 4, Horse Cave, Ky.
1517. *Typhlichthys wyandotte* Eigenmann.
Well near Corydon, Ind.
Typhlichthys wyandotte Eigenmann, Biol. Bull., VIII, 1905, 63, Corydon, Ind.
- Genus 493. *TROGLICHTHYS* Eigenmann.
Troglichthys Eigenmann, A Case of Convergence, Science, new series, IX, 1899, 282 (*Typhlichthys rosæ* Eigenmann).
1518. *Troglichthys rosæ* (Eigenmann). *Missouri cavefish*.
Typhlichthys rosæ Eigenmann, Science, new series, IX, 1899, No. 217, 282, caves in Missouri.
- Genus 494. *AMBLYOPSIS* DeKay.
Amblyopsis DeKay, New York Fauna: Fishes, 1842, 187 (*A. spelæus* DeKay).
1519. *Amblyopsis spelæus* DeKay. *Mammoth Cave blindfish*.
Subterranean streams of the limestone regions of Kentucky and Indiana; River Styx, Mammoth Cave; the largest species of the group.
Amblyopsis spelæus DeKay, New York Fauna: Fishes, 1842, 187, Mammoth Cave, Ky.

Order EE. SYNENTOGNATHI

Family 119. BELONIDÆ. Houndfishes; Needlefishes

- Genus 495. *STRONGYLURA* Van Hasselt.
Strongylura Van Hasselt, Bull. Sci. Nat. Ferussac., II, 1824, 374 (*S. caudimaculata* Van Hasselt=*Belone strongylura* Van Hasselt, 1823).
1520. *Strongylura notata* (Poey). *Needlefish; Longjaws; Gar*.
West Indies, north to Pensacola; common about Key West.
Belone notata Poey, Memorias, II, 1861, 293, Cuba.
1521. *Strongylura scapularis* (Jordan and Gilbert).
Panama.
Tylosurus scapularis Jordan and Gilbert, Bull. U. S. Fish Com., I, 1881, 307, Panama.
1522. *Strongylura timucu* (Walbaum). *Timucu; Peixe agulha*.
Florida Keys to Brazil; not rare.
Timucu or *Peixe agulha* Marcgrave, Hist. Pisc. Brasil., 1648, 168, Brazil.
Esox timucu Walbaum, Artedi Pisc., III, 1792, 88, Brazil; after *Timucu* of Marcgrave.
Belone subtruncata Poey, Memorias, II, 1860, 295, Habana.
Belone depressa Poey, loc. cit., 296, Cuba.
Tylosurus sagitta Jordan and Gilbert, Proc. U. S. Nat. Mus., VII, 1884, 25, Key West.
Belone ardeola Cuvier and Valenciennes, Hist. Nat. Poiss., XVIII, 1846, 315 (425), Porto Rico.
Belone cigonella Cuvier and Valenciennes, loc. cit., 323 (436), Porto Rico.
Belone almeida Quoy and Gaimard, Voy. Uranie, Zool., 1824, 226, Bay of Rio Janeiro.
Belone timucu Cuvier and Valenciennes, Hist. Nat. Poiss., XVIII, 1846, 316 (426), Rio de Janeiro.

1523. *Strongylura argalus* (LeSueur).
West Indies.
Belone argalus LeSueur, in Cuvier and Valenciennes, Hist. Nat. Poiss., XVIII, 1846, 326 (439), Guadeloupe, West Indies.
1524. *Strongylura euryops* (Bean and Dresel). *Longgaw*.
Cuba and Jamaica
Tylosurus euryops Bean and Dresel, Proc. U. S. Nat. Mus., VII, 1884, 168, Jamaica.
1525. *Strongylura diplotænia* (Cope).
St. Martins Island, West Indies.
Belone diplotænia Cope, Trans. Amer. Phil. Soc., XIV, 1871, 481, St. Martins
1526. *Strongylura microps* (Gunther).
Coast of Guiana.
Belone microps Gunther, Cat., VI, 1866, 237, Surinam, British Guiana.
1527. *Strongylura angusticeps* (Gunther).
Coast of Ecuador.
Belone angusticeps Gunther, Cat., VI, 1866, 238, Ecuador.
1528. *Strongylura stolzmanni* (Steindachner). *Sierrita*.
Pacific coast of America from Guaymas and Mazatlan to Peru.
Belone stolzmanni Steindachner, Ichth. Beitr., VII, 1878, 21, Tumbes, Peru
Tylosurus sierrita Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 458, Mazatlan.
1529. *Strongylura exilis* (Girard). *Needlefish; California garfish*.
Coast of southern California, from Point Conception southward to Cedros Island, Mexico.
Belone exilis Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 149, San Diego.
1530. *Strongylura pterura* (Osburn and Nichols).
Gulf of California.
Tylosurus pterurus Osburn and Nichols, Bull. Amer. Mus. Nat. Hist., XXXV, 1916, 152, fig. 6, Carmen Island, Gulf of California.
1531. *Strongylura marina* (Walbaum). *Garfish; Bullfish; Needlefish; Aguñón; Salt-water gar; Silver gar; Swordfish; Green gar; Skippick; Sea pike; Harvest pike; Silvery gar*.
Coast of Maine to Texas; Atlantic and Gulf coasts, entering rivers.
Esox marinus Walbaum, Arted. Pisc., III, 1792, 88; after Schopf.
Esox longirostris Mitchill, Amer. Month. Mag., II, 1818, 322, Hudson River.
Belone truncata LeSueur, Jour. Acad. Nat. Sci. Phila., II, 1821, 126, New York Bay.
Belone sculator Girard, U. S. Mex. Bound. Surv., Ichth., 1859, 30, pl. 13, Brazos Santiago and St. Joseph Island, Tex.
1532. *Strongylura guianensis* (Müller and Troschel).
Tylosurus guianensis Muller and Troschel in Schomburgk's Reise, III, 1848, 626, coast of Guiana.
- Genus 496. *TYLOSURUS* Cocco.
Tylosurus Cocco, Giorn. Sci. Litt. Art. Sicilia, XVII, 1829, 18 (*T. cantrani* Cocco = ? *Sphyræna acus* Lacépède).
1533. *Tylosurus fodiator* Jordan and Gilbert. *Aguñón*.
Pacific coast of Mexico.
Tylosurus fodiator Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 459, Mazatlan.
1534. *Tylosurus raphidoma* (Ranzani). *Houndfish; Aguja de Casta; Guardfish*.
West Indies, Florida Keys to Brazil; north to Ocean City, N. J., and North Carolina.
Belone raphidoma Ranzani, Nov. Com. Acad. Sci. Bonon., V, 1842, 359, pl. 37, fig. 1, Brazil.
Belone gerania Cuvier and Valenciennes, Hist. Nat. Poiss., XVIII, 1846, 325 (437), Martinique.
Belone crassa Poey, Memorias, II, 1861, 291, Cuba.
Belone melanochira Poey, loc. cit., 294, Cuba.
Tylosurus gladius Bean, Proc. U. S. Nat. Mus., V, 1882, 239, 430, Pensacola, Fla.

1535. *Tylosurus galeatus* (Cuvier and Valenciennes).
Cayenne, French Guiana.
Belone galeata Cuvier and Valenciennes, Hist. Nat. Poiss., XVIII, 1846, 319 (429), Cayenne, French Guiana.
1536. *Tylosurus pacificus* (Steindachner).
Acapulco to Panama.
Belone pacifica Steindachner, Ichth. Beitr., III, 1875, 65, Panama.
1537. *Tylosurus acus* (Lacépède). *Houndfish; Agujón*.
West Indies and occasionally northward.
Sphyræna acus Lacépède, Hist. Nat. Poiss., V, 1803, 6, pl. 1, fig. 3, Martinique.
? *Esox imperialis* Rafinesque, Caratteri, 1810, 59, Palermo.
? *Tylosurus cantrainii* Cocco, Giorn. Sci. Litt. Art. Sicilia, XVII, 1829, 18, pl. 1, fig. 4, Messina.
Belone latimana Poey, Memorias, II, 1861, 290, Habana.
Belone jonesi Goode, Amer. Jour. Sci. Arts, XIII, 1877, 295, Bermuda.
1538. *Tylosurus caribbæus* (LeSueur).
West Indies.
Belone caribbæa LeSueur, Jour. Acad. Nat. Sci. Phila., II, 1821, 127, Caribbean Sea.
Belone altipinna Poey, Memorias, II, 1861, 293, Cuba.
- Genus 497. ABLENNES Jordan and Fordice.
Athlennes Jordan and Fordice, Proc. U. S. Nat. Mus., IX, 1886, 342 (*Belone hians* Cuvier and Valenciennes); error of transcription for *Ablennes*.
1539. *Ablennes hians* (Cuvier and Valenciennes).
West Indies, ranging from Florida to Brazil; generally common; also recorded from Acapulco and Hawaii.
Belone hians Cuvier and Valenciennes, Hist. Nat. Poiss., XVIII, 1846, 321 (432), pl. 543, Bahia; common at Habana.
Belone maculata Poey, Memorias, II, 1861, 290, Cuba.

Family 120. SCOMBERESOCIDÆ

- Genus 498. SCOMBERESOX Lacépède. *Sauries*.
Scomberesox Lacépède, Hist. Nat. Poiss., V, 1803, 344 (*S. camperi* Lacépède).
Sayris Rafinesque, Caratteri, 1810, 60 (*S. recurvirostra* Rafinesque = *Esox saurus* Walbaum).
- *Grammiconotus* Costa, Ann. Mus. Zool. Univ. Napoli, I, 1862, 55 (*G. bicolor* Costa; said to lack the air bladder).
1540. *Scomberesox saurus* (Walbaum). *Saury; Skipper; Billfish; Skipjack*.
Temperate parts of Atlantic Ocean; common in schools especially north of Cape Cod and France.
Esox saurus Walbaum, Artdi Pisc., III, 1792, 93, Cornwall; after the saury pike of Pennant.
Scomberesox camperi Lacépède, Hist. Nat. Poiss., V, 1803, 345, locality unknown.
Sayris recurvirostra Rafinesque, Caratteri, 1810, 61; substitute for *camperi*.
Sayris hians Rafinesque, loc. cit., 61, Palermo.
Sayris bimaculatus Rafinesque, loc. cit., 62, Palermo.
Scomberesox scutellatum LeSueur, Jour. Acad. Nat. Sci. Phila., II, 1821 (1823), 132, Newfoundland.
Scomberesox storeri DeKay, N. Y. Fauna: Fishes, 1842, 229, pl. 35, fig. 3, Banks of Newfoundland; coast of Massachusetts; New York.
Scomberesox equirostrum LeSueur, Jour. Acad. Nat. Sci. Phila., II, 1821 (1823), 132, locality unknown.
Scomberesox rondeletii Cuvier and Valenciennes, Hist. Nat. Poiss., XVIII, 1846, 350 (472), Mediterranean.
Grammiconotus bicolor Costa, Ann. Mus. Zool. Univ. Napoli, I, 1862, 55, Naples.
? *Scomberesox forsteri* Cuvier and Valenciennes, Hist. Nat. Poiss., XVIII, 1846, 357 (481), New Zealand.
Sayris serrata Rafinesque, Caratteri, 1810, 61, after Rondelet.

Genus 499. *COLOLABIS* Gill.

Cololabis Gill, Proc. U. S. Nat. Mus., XVIII, 1895, 176 (*Scomberesox brevirostris* Peters).

1541. *Cololabis brevirostris* (Peters).

Coast of California, south to San Diego in the open sea; often in schools. *Scomberesox brevirostris* Peters, Monatsberichte Akad. Wiss. Berlin, July, 1866, 521, Tomales Bay, Calif.; perhaps not separable from the Japanese *Cololabis sawa* Brevoort.

Family 121. HEMIRAMPHIDÆ. Halfbeaks

Genus 500. *EULEPTORHAMPHUS* Gill.

Euleptorhamphus Gill, Proc. Acad. Nat. Sci. Phila., XI, 1859, 156 (*E. brevoortii* Gill = probably *E. velox* Poey).

1542. *Euleptorhamphus longirostris* (Cuvier).

East Indies; Galapagos Islands.

Hemirhamphus longirostris Cuvier, Règne Anim., ed. 2, II, 1829, 286, warm seas of both hemispheres.

1543. *Euleptorhamphus velox* Poey. *Slender halfbeak*.

West Indies, occasionally northward in the Gulf Stream to Massachusetts.

? *Euleptorhamphus brevoortii* Gill, Proc. Acad. Nat. Sci. Phila., XI, 1859, 156, no locality.

Euleptorhamphus velox Poey, Synopsis, 1867, 383, Cuba; perhaps identical with the preceding.

Genus 501. *HYPORHAMPHUS* Gill. *Halfbeaks*

Hyporhamphus Gill, Proc. Acad. Nat. Sci. Phila., XI, 1859, 131 (*H. tricuspidatus* Gill = *Hemirhamphus unifasciatus* Ranzani).

1544. *Hyporhamphus unifasciatus* (Ranzani). *Common halfbeak*; *Escribano*; *Pajarito*.

Tropical seas on both coasts of America from Brazil north to Rhode Island, New Jersey, Guaymas, and Mazatlan; generally common from Key West to Rio de Janeiro; also from Guaymas to the Galapagos; variable; but the distinction into two or more species not trustworthy.

Hemirhamphus unifasciatus Ranzani, Nov. Com. Acad. Sci. Bonon., V, 1842, 326, Brazil.

? *Hemirhamphus picarti* Cuvier and Valenciennes, Hist. Nat. Poiss., XIX, 1846, 18 (25), Bono, Algiers.

Hemirhamphus richardi Cuvier and Valenciennes, loc. cit., 19 (26), St. Croix, Antilles.

Hyporhamphus tricuspidatus Gill, Proc. Acad. Nat. Sci. Phila., XI, 1859, 131, Barbados.

Hemirhamphus fasciatus Poey, Memorias, II, 1861, 299, Cuba; not of Bleeker.

1545. *Hyporhamphus roberti* ³⁵ (Cuvier and Valenciennes).

Both coasts of tropical America; West Indies and Brazil north to Rhode Island, and on the Pacific coast from Gulf of California to the Galapagos.

Hemirhamphus roberti Cuvier and Valenciennes, Hist. Nat. Poiss., XIX, 1846, 18 (24), Cayenne.

1546. *Hyporhamphus gilli* Meek and Hildebrand.

Acapulco to the Galapagos.

Hyporhamphus gilli Meek and Hildebrand, Field Mus. Nat. Hist. Pub. 215, Zool. Ser., XV, Dec. 20, 1923, 240, Pl. XVII, fig. 1, Panama Bay, Balboa.

1547. *Hyporhamphus rosæ* (Jordan and Gilbert).

Coast of southern California and probably southward.

Hemirhamphus rosæ Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 335, San Diego, Calif.

³⁵ This species is slenderer than *H. unifasciatus*, with longer beak and more numerous gill rakers, 28 to 31 on lower limb (21 in *H. unifasciatus*).

- 1548. *Hyporhamphus snyderi* Meek and Hildebrand.**
Lower California to Panama.
Hyporhamphus snyderi Meek and Hildebrand, Field Mus. Nat. Hist.
Pub. 215, Zool., Ser. XV, Dec. 20, 1923, 240, Pl. XVII, fig. 2, Balboa,
Panama Bay.
- Genus 502. HEMIRAMPHUS Cuvier.**
Hemiramphus Cuvier, Règne Anim., ed. 1, II, 1817, 186 (*Esox brasiliensis* Linnæus).
- 1549. *Hemiramphus brasiliensis* (Linnæus).** *Balao*; *Escribano*; *Red-tailed balao*.
West Indies, generally abundant from Key West southward to Bahia
Esox brasiliensis Linnæus, Syst. Nat., ed. X, 1758, 314, Jamaica; after
Browne; the *Timucu* of Macgrave wrongly included in the synonymy;
Bloch, Ichth., 1801, 391, corrected synonymy and description.
Hemiramphus browni Cuvier and Valenciennes, Hist. Nat. Poiss., XIX,
1846, 10 (13), Guadeloupe, Martinique.
Hemiramphus pleii Cuvier and Valenciennes, loc. cit., 15 (19), Martinique, San Domingo.
Macrogathus brevirostris Gronow, Cat. Fish., 1854, 148, America;
after Browne.
Hemiramphus filamentosus Poey, Memorias, II, 1861, 297, Cuba.
- 1550. *Hemiramphus balao* LeSueur.** *Balao*; *Piper*; *Blue-tailed balao*
Cuba; also known from Panama; Guadeloupe; Martinique.
Hemiramphus balao LeSueur, Jour. Acad. Nat. Sci. Phila., II, 1823,
136, Lesser Antilles, Guadeloupe, Martinique.
Hemiramphus macrochirus Poey, Memorias, II, 1861, 299, Cuba.
- 1551. *Hemiramphus saltator* Gilbert and Starks.**
Panama; Galapagos Islands.
Hemiramphus saltator Gilbert and Starks, Mem. Calif. Acad. Sci.,
IV, 1904, 53, Pl. IX, fig. 16, Panama.
- Genus 503. CHRIDORUS Goode and Bean.** *Hardheads*.
Chriodorus Goode and Bean, Proc. U. S. Nat. Mus., V, 1882, 431 (*C. atherinoides* Goode and Bean).
- 1552. *Chriodorus atherinoides* Goode and Bean.** *Hardhead*.
Florida Keys and vicinity.
Chriodorus atherinoides Goode and Bean, Proc. U. S. Nat. Mus., V,
1882, 432, Key West, Fla.
- Genus 504. HEMIEXOCETUS Fowler.**
Hemioxocetus Fowler, Proc. Acad. Nat. Sci. Phila., LIII, 1901, 293
(*H. caudimaculatus* Fowler).
- 1553. *Hemioxocetus caudimaculatus* Fowler.**
Mazatlan, Mexico.
Hemioxocetus caudimaculatus Fowler, Proc. Acad. Nat. Sci. Phila.,
LIII, 1901, 294, Mazatlan, Mexico.
- Family 122. EXOCETIDÆ. Flyingfishes**
- Genus 505. FODIATOR Jordan and Meek.**
Fodiator Jordan and Meek, Proc. U. S. Nat. Mus., VIII, 1885, 45
(*Exocetus acutus* Cuvier and Valenciennes).
- 1554. *Fodiator acutus* (Cuvier and Valenciennes).** *Sharp-nosed flyingfish*.
Both shores of tropical America; Gulf of California; San Luis Gonzales;
Panama; Nice.
Exocetus acutus Cuvier and Valenciennes, Hist. Nat. Poiss., XIX,
1846, 91 (125), Surinam; Nice.
- Genus 506. EVOLANTIA Heller and Snodgrass.**
Evolantia Heller and Snodgrass, Proc. Wash. Acad. Sci., V, 1903, 189
(*Exocetus micropterus* Cuvier and Valenciennes).
- 1555. *Evolantia microptera* (Cuvier and Valenciennes).** *Malolo*.
Galapagos Islands.
Exocetus micropterus Cuvier and Valenciennes, Hist. Nat. Poiss., XIX,
1846, 92 (127), Port King George, New Holland, etc.

Genus 507. *PAREXOCETUS* Bleeker.

Parexocetus Bleeker, Nederl. Tijdschr. Dierk., III, 1866, 126 (*Exocetus mento* Cuvier and Valenciennes).

1556. *Parexocetus mesogaster* (Bloch).

Tropical seas; East Indies and West Indies; Hawaiian Islands; Newport, Rhode Island; Carolina coast.

Exocetus mesogaster Bloch Naturgesch. Ausl. Fisch., IX, 1795, 17, Martinique; on a drawing by Plumier, in which the pectorals and ventrals are much too long.

Exocetus orbignianus Cuvier and Valenciennes, Hist. Nat. Poiss., XIX, 1846, 95 (131), Montevideo

Exocetus hillianus Gosse, Naturalist's Sojourn in Jamaica, II, 1851, Pl. I, fig. 1, Jamaica.

Exocetus gryllus Klunzinger, Verhandl. Zool. Botan. Gesell. Wien, 1871, 586, Red Sea.

Genus 508. *EXOCETUS* Linnæus. *Flyingfishes.*

Exocetus Linnæus, Syst. Nat., ed. X, 1758, 316 (*E. volitans*).

1557. *Exocetus volitans* Linnæus. *Sharp-finned flyingfish.*

Warm seas; Atlantic coast north to Newfoundland; England; Hawaiian Islands and Japan, largely pelagic.

Exocetus volitans Linnæus, Syst. Nat., ed. X, 1758, 316, Atlantic Ocean; not of Cuvier and Valenciennes.

Exocetus evolans Linnæus, loc. cit., ed. XII, 1766, 521; after Gronow.

Exocetus splendens Abel, Narr. Voy. China, 1818, 4, China

Exocetus georgianus Cuvier and Valenciennes, Hist. Nat. Poiss., XIX, 1846, 139, equatorial America.

Exocetus chileensis Abbott, Proc. Acad. Nat. Sci. Phila., XII, 1860, 472, Chile.

1558. *Exocetus obtusirostris* Gunther.

Tropical Atlantic; recorded from Cape Verde Islands, New Orleans, and Miami, Fla.

Exocetus obtusirostris Gunther, Cat., VI, 1866, 283, Cape Verde Islands, etc.; according to Nichols (Copeia, No. 108, 1922, 49), this is different from *E. volitans*.

Genus 509. *EXONAUTES* Jordan and Evermann.

Exonastes Jordan and Evermann, Rept. U. S. Fish Com., 1895, 322 (*Exocetus exsiliens* P. L. S. Muller).

1559. *Exonastes exsiliens* (P. L. S. Müller).

Open seas; rare on our Atlantic coast.

Exocetus exsiliens Philip Ludwig Statius Muller, Nürnberg, ed. Linnæus, Syst. Nat., 1776, 209, Carolinas

Exocetus fasciatus LeSueur, Jour. Acad. Nat. Sci. Phila., II, 1821, 8, pl. 4, fig. 2, Atlantic.

Exocetus lamellifer Kner and Steindachner, Neue Fische Godeffroy Mus., 1866, 29, Atlantic 12° S., 39° W.

1560. *Exonastes rondeletii* (Cuvier and Valenciennes).

Tropical seas; Florida; France; Acapulco; West Indies; southern Europe; perhaps the adult of *E. exsiliens*.

Exocetus rondeletii Cuvier and Valenciennes, Hist. Nat. Poiss., XIX, 1846, 84 (115), pl. 562, Naples; Sicily; Canaries.

Exocetus brachycephalus Günther, Cat., VI, 1866, 297, China.

Exocetus volador Jordan, Proc. U. S. Nat. Mus., VII, 1884, 34 Pensacola, Fla.

1561. *Exonastes vinciguerræ* (Jordan and Meek).

Open Atlantic; southern Europe; Newfoundland; St. Martins; Gulf of Mexico.

Exocetus vinciguerræ Jordan and Meek, Proc. U. S. Nat. Mus., VIII, 1885, 56, open sea off Newfoundland, 46° N., 61° W.

- 1562. *Exonastes rubescens* (Rafinesque).**
Atlantic Ocean, north to Newfoundland; also in the Pacific if *E. speculiger* is the same.
Exocetus rubescens Rafinesque, Amer. Month. Mag., 1818, 205, Banks of Newfoundland.
? *Exocetus speculiger* Cuvier and Valenciennes, Hist. Nat. Poiss., XIX, 1846, 69 (63), Friendly Islands, Pacific coast of South America, etc.
Exocetus roberti Muller and Troschel, Schomburgk's Hist. Barbados, 1848, 675, Barbados.
? *Exocetus quadrremus* Gronow, Cat. Fish., 1854, 145, Spain and India.
Exocetus volitans of various authors; not of Linnæus.
- 1563. *Exonastes affinis* (Günther).**
West Indies to Africa; locally common.
Exocetus affinis Günther, Cat., VI, 1866, 288, West Africa; Cuba.
- 1564. *Exonastes rufipinnis* (Cuvier and Valenciennes).**
Tropical America; Payta; Panama; Tabasco; Barbados.
Exocetus rufipinnis Cuvier and Valenciennes, Hist. Nat. Poiss., XIX, 1846, 72 (99), Payta, Peru.
Exocetus downi Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 167, near Panama.
Exocetus scylla Cope, Trans. Amer. Phil. Soc., XIV, 1871, 481, Tabasco, Mexico.
- Genus 510. CYPSELURUS Swainson.**
Cypselurus Swainson, Class. Fishes, etc., II, 1839, 296 (*Exocetus nuttalli* LeSueur); misprint for *Cypselurus*, according to decision Int. Com. Zool. Nom.
- 1565. *Cypselurus heterurus* (Rafinesque). *Flyingfish; Single-bearded flyingfish.***
Atlantic Ocean, generally common southward to Newfoundland and to England.
Exocetus heterurus Rafinesque, Caratteri, 1810, 58, Palermo.
Exocetus comatus Mitchill, Trans. Lit. Phil. Soc. N. Y., 1815, 448, pl. 5, fig. 1, New York.
Exocetus noveboracensis Mitchill, Amer. Month. Mag., II, 1818, 333, New York.
Exocetus appendiculatus Wood, Jour. Acad. Nat. Sci. Phila., IV, 1824, 283, pl. 17, fig. 2, locality unknown.
Exocetus melanurus Cuvier and Valenciennes, Hist. Nat. Poiss., XIX, 1846, 74 (101), New York.
- 1566. *Cypselurus lutkeni* (Jordan and Evermann).**
Coast of Cuba.
Exocetus lutkeni Jordan and Evermann, Fishes North and Mid. Amer., 1896, 736, Cape San Antonio, Cuba.
- 1567. *Cypselurus furcatus* (Mitchill). *Double-bearded flyingfish.***
Warm seas, north to Cape Cod and the Mediterranean, generally common.
Exocetus furcatus Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 449, New York.
Exocetus nuttalli LeSueur, Jour. Acad. Nat. Sci. Phila., II, 1821, 10, Pl. IV, fig. 1, Gulf of Mexico.
Exocetus (*Cypselurus*) *procne* De Filippie Verany, Mem. Acad. Sci. Torino, ser. 2, XVIII, 1857, 10, fig. 5, Nice.
Exocetus maculipinnis Vinciguerra, Ann. Mus. Genov., XVIII, 1883, pl. 1, fig. 6, 577, Tunis.
- 1568. *Cypselurus nigricans* (Bennett).**
Tropical seas, north to Cuba, Central America, and France.
Exocetus nigricans Bennett, Whaling Voyage, II, 1840, 287, taken in both the Atlantic and Pacific Oceans, in lat. 5° N.
Exocetus bicolor Cuvier and Valenciennes, Hist. Nat. Poiss., XIX, 1846, 81 (111), Atlantic.
Exocetus spilopus Cuvier and Valenciennes, loc. cit., 86 (118), La Rochelle; St. Helena; West Indies; India; Arabia; De Witt Land.

1569. *Cypselurus xenopterus* (Gilbert).
Clarion Island, one of the Revillagigedo Islands.
Exocetus xenopterus Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 58,
Clarion Island.
1570. *Cypselurus lineatus* (Cuvier and Valenciennes).
Tropical Atlantic; Gorea; the Canaries; Madeira and Bermuda.
Exocetus lineatus Cuvier and Valenciennes, Hist. Nat. Poiss., XIX,
1846, 67 (92), Gorea; Canaries.
1571. *Cypselurus cyanopterus* (Cuvier and Valenciennes).
Coasts of Brazil and Caribbean Sea; not common.
Exocetus cyanopterus Cuvier and Valenciennes, Hist. Nat. Poiss., XIX,
1846, 71 (98), American seas.
Exocetus albidactylus Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 167,
Caribbean Sea.
1572. *Cypselurus bahiensis* (Ranzani).
Tropical Atlantic; north to Cuba.
Exocetus bahiensis Ranzani, Nov. Com. Acad. Sci. Bonon., V, 1842,
362, pl. 38, Bahia.
Exocetus vermiculatus Poey, Memorias, II, 1861, 300, Cuba.
? *Exocetus parræ* Poey, Synopsis, 1868, 385, Cuba.
1573. *Cypselurus spilonotopterus* (Bleeker).
Tropical Pacific, north to Hawaii and Galapagos Islands.
Exocetus spilonotopterus Bleeker, Nederl. Tijdschr. Dierk., III, 1863,
113, Sumatra.
1574. *Cypselurus californicus* (Cooper). *Great flyingfish; Volador*.
Southern California; Point Conception to Cape San Lucas; Santa
Barbara Islands; locally very abundant
Exocetus californicus Cooper, Proc. Calif. Acad. Nat. Sci., III, 1863, 93,
fig. 20, Santa Catalina Island.
1575. *Cypselurus callopterus* (Gunther).
Panama
Exocetus callopterus Gunther, Cat., VI, 1866, 292, Panama.
1576. *Cypselurus fucorum* (Zugmayer).
Mid-Atlantic.
Exocetus fucorum Zugmayer, Bull. 193, Inst. Oceanogr., Jan. 20, 1911,
in 31° 38' N., 42° 38' W., at surface.
1577. *Cypselurus holubi* (Steindachner).
Exocetus holubi Steindachner, in Collett, Voy. *Hirondelle*, 1896, 123,
Pl. IV, fig. 18, Newfoundland.
1578. *Cypselurus gibbifrons* (Cuvier and Valenciennes).
Atlantic Ocean; Newport, R. I.
Exocetus gibbifrons Cuvier and Valenciennes, Hist. Nat. Poiss., XIX,
1846, 86 (118), Atlantic.

Order FF. ANACANTHINI

Family 123. MACROURIDÆ (Coryphænoididæ). Grenadiers; Rat-tails

Genus 511. GADOMUS Regan.

Gadomus Regan, Ann. Mag. Nat. Hist., XII, 1903, 459, 466 (*Bathygadus longifilis* Goode and Bean).

1579. *Gadomus arcuatus* (Goode and Bean).
Gulf of Mexico, in deep water.
Bathygadus arcuatus Goode and Bean, Bull. Mus. Comp. Zool., XII,
1886, No. 5, 158, off Martinique in 334 fathoms.
1580. *Gadomus longifilis* (Goode and Bean).
Deep waters of the Gulf of Mexico.
Bathygadus longifilis Goode and Bean, Proc. U. S. Nat. Mus., VIII,
1885, 599, Gulf of Mexico at Albatross station 2392, lat. 28° 47' 30''
N., long. 87° 27' W., in 724 fathoms.

Genus 512. BATHYGADUS Günther.

Bathygadus Günther, Ann. Mag. Nat. Hist., II, 1878, 23 (*B. cottoides* Günther).

Melanobranchus Regan, loc. cit., (7), XI, 1903, 459 (*Bathygadus melanobranchus* Vaillant).

1581. Bathygadus favosus Goode and Bean.

Off Martinique, in deep water.

Bathygadus favosus Goode and Bean, Bull. Mus. Comp. Zool., XII, 1886, No. 5, 160, off Martinique at Blake station 80 in 472 fathoms.

1582. Bathygadus macrops Goode and Bean.

Deep waters of the Gulf of Mexico.

Bathygadus macrops Goode and Bean, Proc. U. S. Nat. Mus., VIII, 1885, 598, at Albatross station 2396 in lat. 28° 34' N., long. 86° 48' W., in 335 fathoms.

Genus 513. STEINDACHNERIA Goode and Bean.

Steindachneria Goode and Bean, in Agassiz, Three Cruises of the *Blake*, II, 1888, 26 (diagnosis but no type named); not *Steindachneria* Eigenmann 1888=*Steindachneridion* Eigenmann and Eigenmann, 1919.

Steindachnerella Eigenmann and Eigenmann, Amer. Nat., XXXI, 1897, 159 (*Steindachneria argentea* Goode and Bean).

1583. Steindachneria argentea Goode and Bean.

Gulf of Mexico.

Steindachneria argentea Goode and Bean, Oceanic Ichth., 1896, 419, fig. 351, off delta of Mississippi River in 68 fathoms.

Genus 514. TRACHYRINCUS Giorna.

Trachyrincus Giorna, Mem. Acad. Imp. Turin, XVI, 1805, 4, 179, (*Lepidolepsus trachyrincus* Rasso, not mentioned).

1584. Trachyrincus helolepis (Gilbert).

Off the Pacific coast of Central America.

Trachyrhynchus helolepis Gilbert, Proc. U. S. Nat. Mus., XIV, 1891, 562, Pacific coast of Central America, at Albatross station 2818, in deep water.

Genus 515. DOLLOA Jordan.

Moseleya Goode and Bean, Oceanic Ichth., 1895, 417 (*Macrurus longifilis* Günther); name preoccupied.

Dolloa Jordan, Amer. Nat., XXXIV, 1900, 877 (*Macrurus longifilis* Günther).

1585. Dolloa cyclolepis (Gilbert).

Coast of British Columbia.

Nematonurus cyclolepis Gilbert, Rept. U. S. Fish Com., XIX, 1893, 458, off Queen Charlotte Island in 1,588 fathoms.

Genus 516. NEMATONURUS Günther.

Nematonurus Günther, *Challenger* Rept., Deep Sea Fishes, XXII, 1887, 124, 150 (*N. armatus* Hector).

1586. Nematonurus goodii (Günther).

Gulf Stream from Cape Cod to Habana; generally abundant.

Macrurus asper Goode and Bean, Bull. Mus. Comp. Zool., X, 1883, No. 5, 196, Gulf Stream, south of New England in 1,242 fathoms.

Macrurus goodii Günther, *Challenger* Report, XXII, 1887, 36; substitute for *Macrurus asper*, preoccupied.

1587. Nematonurus suborbitalis (Gill and Townsend).

Bering Sea.

Macrurus suborbitalis Gill and Townsend, Proc. Biol. Soc. Wash., XI, 1897, 234, Bering Sea, southwest of Pribilof Islands, in 1,771 fathoms.

1588. Nematonurus acrolepis (Bean).

Straits of Juan de Fuca; off Bogoslof Island, north of Aleutian Islands; once taken at Monterey (W. F. Thompson).

Macrurus acrolepis Bean, Proc. U. S. Nat. Mus., VI, 1883, 362, Port Townsend, Wash.

1589. *Nematonurus abyssorum* Gilbert.
Off southern California in deep water.
Nematonurus abyssorum Gilbert, Proc. U. S. Nat. Mus., XLVIII, 1915, 374, pl. 21, off Santa Catalina in 1,350 to 2,182 fathoms.
- Genus 517. ALBATROSSIA Jordan and Evermann.
Albatrossia Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2573 (*Macrourus pectoralis* Gilbert).
1590. *Albatrossia pectoralis* (Gilbert).
Off coast of Oregon.
Macrourus (Malacocephalus) pectoralis Gilbert, Proc. U. S. Nat. Mus., XIV, 1891, 563, off coast of Oregon, at Albatross stations 3071, 3074, and 3075, in 685 to 877 fathoms
Macrurus (Nematonurus) magnus Gill and Townsend, Proc. Biol. Soc. Wash., XI, 1897, 234, Bering Sea, southwest of Pribilof Islands.
- Genus 518. BOGOSLOVIUS Jordan and Evermann.
Bogoslovius Jordan and Evermann, Fish. North and Mid. Amer., 1898, 2574 (*B. clarki* Jordan and Gilbert).
1591. *Bogoslovius clarki* Jordan and Gilbert.
Bering Sea.
Bogoslovius clarki Jordan and Gilbert, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2575, Bering Sea off Bogoslof Island in 664 fathoms.
1592. *Bogoslovius firmisquamis* (Gill and Townsend).
Bering Sea.
Macrurus firmisquamis Gill and Townsend, Proc. Biol. Soc. Wash., XI, 1897, 234, Bering Sea southwest of Pribilof Islands.
- Genus 519. CHALINURA Goode and Bean.
Chalinura Goode and Bean, Bull. Mus. Comp. Zool., X, 1882, No. 5, 198 (*C. simula* Goode and Bean).
Chalinurus Gunther, altered spelling.
1593. *Chalinura occidentalis* (Goode and Bean).
Atlantic Ocean off Cape Hatteras and Caribbean Sea.
Malacocephalus occidentalis Goode and Bean, Proc. U. S. Nat. Mus., VIII, 1885, 597, off Cape Hatteras in 132 fathoms.
1594. *Chalinura serrula* Bean.
East of Prince of Wales Island in deep water.
Chalinura serrula Bean, Proc. U. S. Nat. Mus., XIII, 1890, 37, east of Prince of Wales Island, at Albatross station 2859 in 1,569 fathoms.
1595. *Chalinura filifera* Gilbert.
Off Queen Charlotte Island, in deep water.
Chalinura filifera Gilbert, Rept. U. S. Fish Com., XIX, 1893 (1896), 458, off Queen Charlotte Island, at Albatross station 3342.
1596. *Chalinura simula* Goode and Bean.
Gulf Stream.
Chalinura simula Goode and Bean, Bull. Mus. Comp. Zool., X, No. 5, 1883, 199, Gulf Stream, about latitude 40°.
1597. *Chalinura brevibarbis* Goode and Bean.
Atlantic Basin.
Chalinura brevibarbis Goode and Bean, Oceanic Ichth., 1895, 413, Atlantic Ocean in 1,255 fathoms.
1598. *Chalinura spinulosa* Gilbert and Burke.
East coast of Kamchatka.
Chalinura spinulosa Gilbert and Burke, Bull. U. S. Bur. Fish., XXX, 1910, 92, fig. 36, Avatcha Bay.
- Genus 520. CORYPHÆNOIDES³⁸ Gunner.
Coryphænoides Gunner, Trondhj. Selsk. Skrift., III, 1765, 50 (*C. rupestris* Gunner).

³⁸ The name *Coryphænoides* is older than *Macrourus*, the term usually applied to the species of this genus. The distinction between *Coryphænoides* and *Macrourus* is rather slight, the mouth in *Macrourus* being smaller and more inferior. Gilbert and Hubbs unite the two groups as *Coryphænoides*. Many species have been described from the deep waters of America. These we leave in *Coryphænoides* or in *Macrourus* as their describers have placed them. Some of the genera accepted here are of questionable value.

- 1599. *Coryphænoides rupestris* Gunner.**
Banks of Newfoundland to Norway.
Coryphænoides rupestris Gunner, Trondhj. Selsk. Skrift., III, 1765, 50.
Lepidolepus norvegicus Nilsson, Prodr. Ichth. Scand., 1832, 51, Norway.
- 1600. *Coryphænoides carapinus* Goode and Bean.**
Gulf Stream.
Coryphænoides carapinus Goode and Bean, Bull., Mus. Comp. Zool., X, 1883, No. 5, 197, Gulf Stream, about lat. 40°, in deep water.
- Genus 521. *MACROURUS* ³⁷ Bloch.**
Macrourus Bloch, Naturgesch. Ausl. Fische, II, 1786, 150 (*Coryphæna rupestris* Fabricius = *Macrourus berglax* Lacépède); not *Coryphænoides rupestris* Gunner.
Macrurus Gunther, and of most authors; corrected spelling.
- 1601. *Macrourus berglax* Lacépède.**
Massachusetts to Greenland and Norway.
? *Coryphæna rupestris* Fabricius, Fauna Groenlandica, 1780, 154, Greenland.
Macrourus berglax Lacépède, Hist. Nat. Poiss., III, 1802, 170, Greenland.
- 1602. *Macrourus bairdi* Goode and Bean. *Common rat-tail.***
West Indies to Massachusetts Bay; excessively common north in deep water.
Macrourus bairdi Goode and Bean, Amer. Jour. Sci. Arts., XIII, 1877, 471, Massachusetts Bay.
- 1603. *Macrourus stelgidolepis* Gilbert.**
Pacific Ocean off Point Conception, Calif.
Macrurus (Macrourus) stelgidolepis Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 116, Albatross station 2960, lat. 34° 10' 45'' N., long. 120° 16' 45'' W., in 267 fathoms.
- 1604. *Macrourus cinereus* Gilbert. *Popeye.***
North Pacific and Bering Sea; very abundant.
Macrurus cinereus Gilbert, Rept. U. S. Fish Com., XIX, 1893 (1896), 457, at Albatross stations 3307, 3329, and 3340, lat. 54° to 55° N. and long. 155° to 171° W., in 399 to 1,033 fathoms.
- 1605. *Macrourus bulbiceps* Garman.**
Off Cocos Islands in deep water.
Macrurus bulbiceps Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 194, Pl. XLIV, off Cocos Islands.
- 1606. *Macrourus bucephalus* Garman.**
Off Galapagos Islands to Gulf of California, in deep water.
Macrurus bucephalus Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 195, Pl. XLIV, Gulf of California.
- 1607. *Macrourus barbiger* Garman.**
Gulf of California in deep water.
Macrurus barbiger Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 197, Pl. XLV, Gulf of California.
- 1608. *Macrourus capito* Garman.**
Off Panama in deep water.
Macrurus capito Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 200, off Bay of Panama.
- 1609. *Macrourus leucophæus* Garman.**
Off Panama in deep water.
Macrurus leucophæus Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 201, off Bay of Panama.
- 1610. *Macrourus boöps* Garman.**
Off Panama in deep water.
Macrurus boöps Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 202, off Bay of Panama.

³⁷ The many deep-sea forms described by Garman are nearly all referred to *Macrourus* without reference to the closely related minor genera proposed for forms allied to *Macrourus* and *Coryphænoides*, the two principal genera of the family, and themselves barely separable.

1611. *Macrourus fragilis* Garman.
Off Panama in deep water.
Macrurus fragilis Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 203,
Pl. XLV, off coast of Panama.
1612. *Macrourus carminifer* Garman.
Off Panama in deep water.
Macrurus carminifer Garman, Mem. Mus. Comp. Zool., XXIV, 1899,
204, Pl. XLVI, off Bay of Panama.
1613. *Macrourus gracilicauda* Garman.
Off Panama in deep water.
Macrurus gracilicauda Garman, Mem. Mus. Comp. Zool., XXIV, 1899,
206, Pl. H, off Bay of Panama.
1614. *Macrourus orbitalis* Garman.
Off Panama in deep water.
Macrurus orbitalis Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 207,
Pl. XLVII, off Bay of Panama.
1615. *Macrourus cuspidatus* Garman.
Gulf of California in deep water.
Macrurus cuspidatus Garman, Mem. Mus. Comp. Zool., XXIV, 1899,
209, Gulf of California.
1616. *Macrourus convergens* Garman.
Off Panama in deep water.
Macrurus convergens Garman, Mem. Mus. Comp. Zool., XXIV, 1899,
210, Pl. XLVIII, off Bay of Panama.
1617. *Macrourus latirostratus* Garman.
Off Panama in deep water.
Macrurus latirostratus Garman, Mem. Mus. Comp. Zool., XXIV, 1899,
211, Pl. XLVIII, off Bay of Panama.
1618. *Macrourus latinus* Garman.
Gulf of California in deep water.
Macrurus latinus Garman, Mem. Mus. Comp. Zool., XXIV, 1899,
214, Gulf of California.
1619. *Macrourus anguliceps* Garman.
From Galapagos Islands to Gulf of California in deep water.
Macrurus anguliceps Garman, Mem. Mus. Comp. Zool., XXIV, 1899,
212, Pl. G; off Bay of Panama.
1620. *Macrourus trichurus* Garman.
Off Panama in deep water.
Macrurus trichurus Garman, Mem. Mus. Comp. Zool., XXIV, 1899,
215, off Bay of Panama.
1621. *Macrourus tenuicauda* Garman.
Off Panama in deep water.
Macrurus tenuicauda Garman, Mem. Mus. Comp. Zool., XXIV, 1899,
216, Pl. XLIX, off Bay of Panama.
1622. *Macrourus canus* Garman.
Off Panama in deep water.
Macrurus canus Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 217,
Pl. XLIX, off Bay of Panama.
1623. *Macrourus albatrossus* Townsend and Nichols.
Off Lower California in deep water.
Macrurus albatrossus Townsend and Nichols, Bull. Amer. Mus. Nat.
Hist., LII, 1925, 17, lat. 31° W., southwest of San Diego in 1,076
fathoms.
1624. *Macrourus ingolfi* Lütken.
Iceland and Greenland in deep water.
Macrurus ingolfi Lütken, Ichth. Ingolf Exped., 1898, 27, south of Iceland.

1625. *Macrourus lepturus* Gill and Townsend.
Bering Sea, St. Paul Island, Yunaska Island.
Macrourus lepturus Gill and Townsend, Proc. Biol. Soc. Wash., XI,
1897, 233, Bering Sea, southwest of the Pribilof Islands, in 1,401
fathoms.
Macrurus dorsalis Gill and Townsend, loc. cit., 233, Bering Sea, south-
west of Pribilof Islands, in 1,401 fathoms.
- Genus 522. *CÆLORHYNCHUS* Giorna.
Calorhynchus Giorna, Mem. Acad. Nat. Sci. Turin, XVI, 1805, 179,
pl. 1, figs. 3 and 4 (*C. laville* Giorna).
1626. *Cælorhynchus occa* (Goode and Bean).
Gulf of Mexico in deep water.
Macrurus occa Goode and Bean, Proc. U. S. Nat. Mus., VIII, 1885,
595, Gulf of Mexico in 335 fathoms.
1627. *Cælorhynchus carminatus* (Goode). *Grenadier*.
Caribbean Sea, north in the Gulf Stream to Long Island.
Macrurus carminatus Goode, Proc. U. S. Nat. Mus., III, 1880, 346,
Gulf Stream, 40° 02' 54" N., 70° 23' 40" W., in 115 fathoms.
1628. *Cælorhynchus caribbæus* (Goode and Bean).
West Indies to northern part of Gulf of Mexico.
Macrurus caribbæus Goode and Bean, Proc. U. S. Nat. Mus., VIII,
1885, 594, northern part of Gulf of Mexico in 210 fathoms.
1629. *Cælorhynchus scaphopsis* (Gilbert).
Gulf of California in deep water.
Macrurus (Cælorhynchus) scaphopsis Gilbert, Proc. U. S. Nat. Mus.,
XIII, 1890, 115, Gulf of California at Albatross station 3015, lat.
29° 19' N., long. 112° 50' W., in 145 fathoms.
- Genus 523. *TRACHONURUS* Günther.
Trachonurus Günther, *Challenger* Rept., Deep-sea Fishes, XXII, 1887,
124 (*Macrurus villosus* Günther).
1630. *Trachonurus sulcatus* (Goode and Bean).
West Indies and Gulf of Mexico in deep water.
Coryphænoides sulcatus Goode and Bean, Proc. U. S. Nat. Mus., VIII,
1885, 596, Gulf of Mexico in 420 fathoms.
- Genus 524. *LIONURUS* Günther.
Lionurus Günther, *Challenger* Rept., Deep-sea Fishes, XXII, 1887, 124
(*Coryphænoides filicauda* Günther).
1631. *Lionurus liolepis* (Gilbert).
Off southern California in deep water.
Macrurus (Lionurus) liolepis Gilbert, Proc. U. S. Nat. Mus., XIII,
1890, 117, coast of California at Albatross station 2980, lat. 33° 49'
45" N., long. 119° 24' 30" W. in 600 fathoms.
- Genus 525. *HYMENOCEPHALUS* Giglioli and Issel.
Hymenocephalus Giglioli and Issel, Pelagos, Genoa, 1884, 228 (*H.*
italicus Giglioli and Issel).
1632. *Hymenocephalus cavernosus* (Goode and Bean).
Gulf of Mexico in deep water.
Bathygadus cavernosus Goode and Bean, Proc. U. S. Nat. Mus., VIII,
1885, 598, Albatross station 2398, lat. 28° 45' N., long. 86° 26' W.
in 227 fathoms.
- Genus 526. *ATELEBRACHIUM* Gilbert and Burke.
Atelebrachium Gilbert and Burke, Bull. U. S. Bur. Fish., XXX, 1910,
94 (*A. pterotum* Gilbert and Burke).
1633. *Atelebrachium pterotum* Gilbert and Burke.
East coast of Kamchatka
Atelebrachium pterotum Gilbert and Burke, Bull. U. S. Bur. Fish.,
XXX, 1910, 94, Avatcha Bay.

Family 124. BREGMACEROTIDÆ

Genus 527. BREGMACEROS (Cantor) Thompson.

Bregmaceros Thompson, in Charlesworth's Mag. Nat. Hist., IV, 1840, I, 184 (*B. maclellandii* Thompson).

Calloptilum Richardson, Voy. Sulphur, 94, 1843, 16 (*C. mirum* Richardson).

Asthenurus Tickell, Jour. Asiat. Soc. Bengal, 1865, 32 (*A. atripinnus* Tickell).

1634. *Bregmaceros bathymaster* Jordan and Bollman.

South Pacific and Indian Oceans; also off coast of Panama.

?*Bregmaceros maclellandii* Cantor, in Charlesworth's Mag. Nat. Hist., IV, 1840, 184, fig. 185, India.

?*Asthenurus atripinnus* Tickell, Jour., Asiat. Soc. Bengal, 1865, 32, with plate, Bay of Bengal.

Bregmaceros bathymaster Jordan and Bollman, Proc. U. S. Nat. Mus., XII, 1889, 173, southwest of Panama.

1635. *Bregmaceros atlanticus* Goode and Bean.

Blake stations 99, off Granada, 113, off Nevis; and 185.

Bregmaceros atlanticus Goode and Bean, Bull., Mus. Comp. Zool., XII, 1886, No. 5, 165, off Nevis and Granada, West Indies.

1636. *Bregmaceros longipes* Garman.

Off coast of Acapulco, Mexico, in shallow water.

Bregmaceros longipes Garman, Mem., Mus. Comp. Zool., XXIV, 1899, 191, Pl. XLIII, off Pacific coast of Mexico.

Family 125. GAIDROPSARIDÆ. Rocklings

Genus 528. GAIDROPSARUS Rafinesque. Three-bearded rocklings.

Gaidropsarus Rafinesque, Indice, II, 1810, 51 (*G. mustellurus* = *Enchelyopus mediterraneus* Schneider).

Dropsarus Rafinesque, Anal. Nat., 1815, 88, shortened form; same type.

Les Mustèles Cuvier, Règne Anim., ed. 1, II, 1817, 215 (*tricirrhatu* = *mediterraneus*).

Mustela Oken, Isis, 1817 (for *les Mustèles*, not *Mustela* L., a genus of weasels).

Onos Risso, Hist. Europ. Mérid., III, 1826, 214 (*Gadus mustela* Bloch).

Mustela Stark, Elem. Nat. Hist., I, 1828, 425; after *les Mustèles*.

Motella Cuvier, Règne Anim., ed. 2, II, 1829, 334 (*Gadus mustela* L.); substitute for *Mustela* Cuvier.

Onus Günther, corrected spelling; not of Rafinesque.

1637. *Gaidropsarus ensis* (Reinhardt). Rockling; Three-bearded rockling.

New York to Greenland.

Motella ensis Reinhardt, Dansk. Vidensk. Selsk. Afhandl., VII, 1838, 116, 128, Greenland.

Onus rufus Gill, Proc. U. S. Nat. Mus., VI, 1883, 259, Gulf Stream.

1638. *Gaidropsarus septentrionalis* (Collett).

Coasts of Norway and Greenland.

Motella septentrionalis Collett, Ann. Mag. Nat. Hist., 4th ser., XV, 1875, 82, Lofoten, Florø, Bergen, coast of Norway and Bodo, lat. 67° 15' N., in 30 fathoms.

Genus 529. CILIATA Couch. Five-bearded rocklings.

Ciliata Couch, Mag. Nat. Hist., V, 1822, 15 (*C. glauca* Couch, the "mackerel midge," larva of *Gadus mustela* L.)

Couchia Thompson, Nat. Hist. Ireland, IV, 1856, 288 (*C. minor* Thompson = larva of *Gadus mustela* L.).

Molvella Kaup, Archiv Natur., XXIV, 1858, I, 90 (*Molvella borealis* Kaup = *Gadus mustela* L.).

1639. *Ciliata argentata* (Reinhardt). Silvery rockling; Mackerel midge; Five-bearded rockling.

Coasts of Greenland, south to Farøe and Bear Islands.

Motella argentata Reinhardt, Dansk. Vidensk. Selsk. Afhandl., VII, 1838, 116, 128, Greenland.

Motella reinhardi Krøyer, in Collett, Forhandl. Vidensk. Selsk. Chr., No. 14, 1878, 83, Greenland.

Genus 530. ENCHELYOPUS³⁸ Bloch and Schneider. *Four-bearded rocklings*.
Enchelyopus Bloch and Schneider, Syst. Ichth., 1801, 50 (*Gadus cimbrius* L.); not of Gronow, which is nonbinomial.
Rhinnonemus Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 241 (*Gadus cimbrius* L.).

1640. *Enchelyopus cimbrius* (Linnaeus). *Four-bearded rockling*.
 North Atlantic on both coasts, south in deep water to the Gulf Stream; common in Massachusetts Bay.
Gadus cimbrius Linnaeus, Syst. Nat., ed. 12, I, 1766, 440, Atlantic Ocean; Scania.
Motella caudacuta Storer, Proc. Bost. Soc. Nat. Hist., III, 1848, 5, Long Point, Provincetown, Mass.

Family 126. GADIDÆ. Codfishes

Genus 531. BOREOGADUS Günther.
Boreogadus Günther, Cat., IV, 1862, 336 (*Gadus fabricii* Richardson = *Gadus saida* Lepechin).

1641. *Boreogadus saida* (Lepechin).
 Arctic seas, Greenland to Alaska and northern Russia; common in the far north.
Gadus saida Lepechin, Nov. Comm. Acad. Sci. Petropol., XVIII, 1774, 512, Russia.
Merlangus polaris Sabine, Suppl. Parry's Voy., CCXI, 1824, Baffin's Bay.
Gadus fabricii Richardson, Fauna Bor.-Amer., III, 1836, 245, northern bays of Greenland.
Gadus agilis Reinhardt, Danske Vidensk. Selsk. Afhandl., VII, 1838, 126, Greenland.

Genus 532. POLLACHIUS Nilsson. *Pollacks*.
Pollachius Nilsson, in Bonaparte, Cat. Metod. Pesci. Europ., 1846, 45 (*Gadus pollachius* Linnaeus).

1642. *Pollachius virens* (Linnaeus). *Pollack; Coalfish; Green cod*.
 North Atlantic; common northward on both coasts, south to Cape Cod.
Gadus virens Linnaeus, Syst. Nat., ed. X, 1758, 253, oceans of Europe.
Gadus carbonarius Linnaeus, loc. cit., 254, seas of Europe.
Gadus colinus Lacépède, Hist. Nat. Poiss., II, 1800, 416, England, etc.
Gadus purpureus Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 370, New York.
Merlangus leptocephalus DeKay, New York Fauna: Fishes, 1842, 288, pl. 45, fig. 146, Long Island.

Genus 533. THERAGRA Lucas.
Theragra Lucas, in Jordan and Gilbert, Rept. Fur-seal Invest., III, 1896, 486 (*Gadus chalcogrammus* Pallas).

1643. *Theragra chalcogramma* (Pallas). *Alaska pollack*.
 North Pacific, south to Sitka.
Gadus chalcogrammus Pallas, Zoogr. Rosso.-Asiat., III, 1811, 198, Kamchatka.
Gadus periscopus Cope, Proc. Amer. Phil. Soc., XIII, 1873, 30, Unalaska.

1644. *Theragra fucensis* (Jordan and Gilbert). *Wall-eyed pollack; Puget Sound pollack*.
 Puget Sound.
Pollachius chalcogrammus fucensis Jordan and Gilbert, Proc. U. S. Nat. Mus., XVI, 1893, 315, Puget Sound at Tacoma, Wash.

Genus 534. ELEGINUS Fischer.
Eleginus Fischer, Mem. Soc. Nat. Moscow, 2d ed., V, 1813, 4, 252-257 (*Gadus nawaga* Kolreuter).

³⁸ The name *Enchelyopus* ("eels without ventral fins") has been used variously since first proposed by Gronow; Gronow applied the name to *Zoarces*, Klein to *Trichurus*; as both these writers were nonbinomial we recognize its first binomial use, that of Schneider, for *Gadus cimbrius* L.

1645. *Eleginus nawaga* (Kölreuter). *Wachna* cod.

Puget Sound to Bering Sea.

Gadus nawaga Kölreuter, Nov. Com. Acad. Sci. Petropol., XIV, 1770, 484, pl. 12, coast of northern Russia.*Gadus gracilis* Tilesius, Mém. Acad. Sci. Imp. St. Petersb., II, 1810, 354, Kamchatka.*Gadus wachna* Pallas, Zoogr. Rosso.-Asiat., III, 1811, 182, Kamchatka.**Genus 535. MICROGADUS Gill. *Tomcods*.***Microgadus* Gill, Proc. Acad. Nat. Sci. Phila., XVII, 1865, 69 (*Gadus proximus* Girard).**1646. *Microgadus tomcod* (Walbaum). *Tomcod*; *Frostfish*.**

East coast of North America, from Virginia to Labrador.

Gadus tomcod Walbaum, Artedi Pisc., III, 1792, 133, Long Island; after Schöpfung.*Gadus frost* Walbaum, loc. cit., 134, North America.*Gadus tomcodus pruinosus* Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 269, New York.*Gadus tomcodus fuscus* Mitchill, loc. cit., 369, New York.*Gadus tomcodus luteus* Mitchill, loc. cit., 369, New York.*Gadus tomcodus mixtus* Mitchill, loc. cit., 369, New York.*Gadus polymorphus* Mitchill, loc. cit., 369, New York.*Morrhua americana* Storer, Rept. Fish. Mass., 1839, 120, coast of Massachusetts.**1647. *Microgadus proximus* (Girard). *California tomcod*.**

West coast of North America, from Monterey to Alaska.

Gadus proximus Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 141, San Francisco.*Morrhua californica* Ayres, Proc. Calif. Acad. Nat. Sci., I, 1854, 8, San Francisco.**Genus 536. GADUS Linnæus. *Codfishes*.***Gadus* (Artedi) Linnæus, Syst. Nat., ed. X, 1758, 251 (*Gadus morrhua* L.).*Morrhua* Oken, Isis, 1817, 1182, after "Les Morrhues" Cuvier (*Gadus morrhua* L.).*Cephus* Swainson, Nat. Hist. Class. Fish., II, 1839, 300 (*Gadus macrocephalus* Tilesius).*Cerdo* Gistel, Thierreich, X, 1848 (*Gadus morrhua* L., by implication).**1648. *Gadus morrhua* Linnæus. *Common codfish*.**

North Atlantic, south to Virginia.

Gadus callarias Linnæus, Syst. Nat., ed. X, 1758, 252, Baltic Sea and ocean off Europe; young.*Gadus morrhua* Linnæus, loc. cit., seas of Europe; name preferred by first reviser.*Gadus vertagus* Walbaum, Artedi Pisc., III, 1792, 143; after Jagershen.? *Gadus heteroglossus* Walbaum, loc. cit., 144; after Hornbogen of Klein.*Gadus arenosus* Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 368, New York.*Gadus rupestris* Mitchill, loc. cit., 368, New York.? *Gadus nanus* Faber, Natur. Fische Islands, 1829, 112, 182, Iceland.**1649. *Gadus macrocephalus* Tilesius. *Alaska codfish*; *Pacific cod*.**

Bering Sea, south to coast of Oregon.

Gadus macrocephalus Tilesius, Mem. Acad. Sci. St. Petersb., II, 1810, 360, Bering Sea.*Gadus pygmaeus* Pallas, Zoogr. Ross.-Asiat., III, 1811, 199, Kamchatka.*Gadus auratus* Cope, Proc. Amer. Phil. Soc., XIII, 1873, 30, Unalaska.**1650. *Gadus ogac* Richardson. *Greenland codfish*; *Ogac*.**

Greenland; Godhaven.

Gadus ogac Richardson, Fauna Bor.-Amer., III, 1836, 246, Greenland.**Genus 537. MELANOGRAMMUS Gill.***Melanogrammus* Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 280 (*Gadus seglefinus* Linnæus).*Æglefinus* Malm, Göteborg och Bohusläns Fauna, 1877, 481 (*Gadus seglefinus* L. = *Æglefinus linnæi* Malm).

- 1651. *Melanogrammus æglefinus* (Linnæus). Haddock.**
 North Atlantic, on both coasts.
Gadus æglefinus Linnæus, Syst. Nat., ed. X, 1758, 251, ocean off Europe.
Morrhua punctatus Fleming, Brit. Anim., 1828, 191.
Æglefinus linnæi Malm, Göteborg Bohusläns Fauna, 1877, 481.
- Genus 538. LEPIDION Swainson.**
Lepidion Swainson, Nat. Hist. Class'n Anim., I, 1838, 318, and II, 1839, 300 (*L. rubescens* Swainson=*Gadus lepidion* Risso); not *Lepidia* Savigny, 1817,
Haloporphyrus Günther, Cat., IV, 1862, 358 (*Gadus lepidion* Risso).
- 1652. *Lepidion verecundum* Jordan and Cramer.**
 Off Pacific coast of Mexico.
Lepidion verecundum Jordan and Cramer, Proc. U. S. Nat. Mus., XIX, 1896, 456, Clarion Island, Mexico.
- Genus 539. MICROLEPIDIUM Garman.**
Microlepidium Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 180, (*M. grandiceps* Garman).
- 1653. *Microlepidium grandiceps* Garman.**
 Gulf of California in deep water.
Microlepidium grandiceps Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 181, Pl. XLIII, Gulf of California.
- Genus 540. ANTIMORA Günther.**
Antimora Günther, Ann. Mag. Nat. Hist., 5th ser., II, 1878, 18 (*A. rostrata* Gunther).
- 1654. *Antimora viola* (Goode and Bean).**
 Banks of Newfoundland and southward.
Haloporphyrus viola Goode and Bean, Proc. U. S. Nat. Mus., I, 1878, 257, LaHave Bank in 400 fathoms.
- 1655. *Antimora microlepis* Bean.**
 Pacific Ocean, off Queen Charlotte Islands.
Antimora microlepis Bean, Proc. U. S. Nat. Mus., XIII, 1890, 38, lat. 51° 00' 23" N., long. 130° 34' W., off Cape St. James, Queen Charlotte Islands, in 875 fathoms.
- 1656. *Antimora rhina* Garman.**
 Off Panama in deep water.
Antimora rhina Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 185, off Bay of Panama.
- Genus 541. GADELLA Lowe.**
Gadella Lowe, Proc. Zool. Soc. Lond., 1843, 91 (*G. gracilis* Lowe).
Uraleptus Costa, Wiegmann's Archiv Naturgesch., 1858, 87 (*Gadus maraldi* Risso).
- 1657. *Gadella maraldi* (Risso).**
 Nice; Madeira; Naples and Catania; also off island of Nevis in the West Indies.
Gadus maraldi Risso, Ichth. Nice, 1810, 123, pl. 6, fig. 13, Nice.
Gadella gracilis Lowe, Proc. Zool. Soc. Lond., 1843, 91, Madeira.
- Genus 542. LOTELLA Kaup.**
Lotella Kaup, Wiegmann's Archiv, 1858, 88 (*Lota phycis* Temminck and Schlegel).
- 1658. *Lotella maxillaris* Bean.**
 Gulf Stream.
Lotella maxillaris Bean, Proc. U. S. Nat. Mus., VII, 1884, 241, lat. 39° 55' N., long. 70° 28' W., in 396 fathoms.
- Genus 543. PHYSICULUS Kaup.**
Physiculus Kaup, Wiegmann's Archiv, 1858, 88 (*P. dalwigkii* Kaup).
- 1659. *Physiculus kaupi* Poey.**
 Cuba.
Physiculus kaupi Poey, Repertorio, I, 1865, 186, Matanzas, Cuba.

1660. *Physiculus fulvus* Bean.
Caribbean Sea and north in the Gulf Stream to latitude 35°.
Physiculus fulvus Bean, Proc. U. S. Nat. Mus., VII, 1884, 240, lat. 40° 1' N., long. 69° 56' W., 79 fathoms.
1661. *Physiculus nematopus* Gilbert.
On both coasts of Lower California, in deep water.
Physiculus nematopus Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 114, on both coasts of Lower California, at Albatross stations 2997, 3011, 3015, and 3016, in 71 to 221 fathoms.
1662. *Physiculus rastrelliger* Gilbert.
Off Panama to southern California in deep water.
Physiculus rastrelliger Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 113, coast of southern California.
1663. *Physiculus longipes* Garman.
Off Panama in deep water.
Physiculus longipes Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 188, Pl. XLII, off Bay of Panama.
- Genus 544. *LOTA* Cuvier. *Burbot*s.
Les Lottes Cuvier, Règne Anim., ed. 1, II, 1817, 215 (*Gadus lota* L.).
Lota Oken, Isis, 1817, 1182 (*Gadus lota* L.).
1664. *Lota maculosa* (LeSueur). *Burbot*; *Lake lawyer*; *Ling*; *Alekey trout*; *El pout* and *Long-tailed cat* (trade names at Sandusky, Ohio); *Mud blower*.
Rivers and lakes of New England and the Great Lakes region, north to Arctic seas, and west to the upper Missouri and Columbia River Basins.
Gadus maculosus LeSueur, Jour. Acad. Nat. Sci. Phila., I, 1817, 83, Lake Erie.
Gadus compressus LeSueur, loc. cit., 84, Connecticut River.
Gadus lacustris Mitchell, Amer. Month. Mag., II, 1818, 244, Sebago Lake, Maine; not of Walbaum.
Molva hunta LeSueur, Mém. Mus. Hist. Nat. Paris, V, 1819, 161, Connecticut River.
Lota inornata DeKay, New York Fauna: Fishes, 1842, 283, pl. 45, fig. 145, Hudson River, Lansingburgh, N. Y.
Lota brosmiana Storer, Bost. Jour. Nat. Hist., IV, 1841, 58, pl. 5, fig. 1, Lake Winnipissiogee, N. H.
- Genus 545. *MOLVA* Fleming. *Lings*.
Molva Fleming, Hist. Brit. Anim., 1828, 192 (*Gadus molva* L. = *Molva vulgaris* Fleming).
Molva Nilsson, Scandinavian Fauna, IV, 1832, 573 (*Gadus molva* L.).
1665. *Molva molva* (Linnæus). *Ling*; *Iverksoak*.
Spitzbergen to Gulf of Gascony, Arcachon; San Juan de Luz; Iceland; Greenland; Faroe Islands.
Gadus molva Linnæus, Syst. Nat., ed. X, 1758, 254, seas of Europe.
- Genus 546. *PHYCIS* Röse. *Codlings*.
Phycis Röse, Synonymia, etc., ed. II, 1793 (*Φυκίς* Aristotle = *Phycis tinca* Schroeder); not *Phycis* Fabricius, 1798, a genus of insects.
Phycis Rafinesque, Amer. Month. Mag., 1818, 242 (*Phycis marginatus* Rafinesque = *Blennius chisso* Walbaum).
1666. *Phycis earlii* Bean.
Charleston, S. C.
Phycis earlii Bean, Proc. U. S. Nat. Mus., III, 1880, 69, Charleston, S. C.
1667. *Phycis cirratus* Goode and Bean.
Deep waters of the Gulf of Mexico.
Phycis cirratus Goode and Bean, Oceanic Ichth., 1896, 358, Gulf of Mexico, at lat. 29° 03' 15" N., long. 88° 16' W.

Genus 547. UROPHYCIS Gill.

Phycis Bloch and Schneider, Syst. Ichth., 1801, 56 (*tinca*=*blennioides*), not *Phycis* Fabricius, 1798, a genus of Lepidoptera.

Urophycis Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 240 (*Blennius regius* Walbaum).

Emphycus Jordan and Evermann, Fish. North and Mid. Amer., 1898, 2552 (*Gadus tenuis* Mitchill).

1668. Urophycis floridanus (Bean and Dresel).

Pensacola, Fla.

Phycis floridanus Bean and Dresel, Proc. Biol. Soc. Wash., II, 1884, 100, Pensacola, Fla.

1669. Urophycis regius (Walbaum). Spotted codling, Spotted hake.

North Atlantic, south to Cape Fear.

Blennius regius Walbaum, Artedi Pisc., III, 1792, 186; after Schöpf.

Enchelyopus regalis Bloch and Schneider, Syst. Ichth., 1801, 53; after Schöpf.

Gadus punctatus Mitchill, Trans., Lit. Phil. Soc. N. Y., I, 1815, 372, New York.

1670. Urophycis tenuis (Mitchill). Codling; Squirrel hake; Hake; Lang, Thimble-eyed ling; White hake; Old English hake.

North Atlantic, south to Virginia; abundant northward.

Gadus tenuis Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 371, New York.

Phycis dekayi Kaup, Wiegmann's Archiv, 1858, Pt. I, 89, North America.

?*Phycis rostratus* Gunther, Cat., IV, 1862, 353, no locality.

1671. Urophycis chuss (Walbaum). Codling, Squirrel hake; Thimble-eyed ling; Old English hake; Chuss; Fork-beard; Red hake.

Atlantic coast, chiefly northward.

Blennius chuss Walbaum, Artedi Pisc., III, 1792, 186, Long Island; after Schöpf.

Enchelyopus americanus Bloch and Schneider, Syst. Ichth., 1801, 53; after Schöpf.

Gadus longipes Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 372, pl. 1, fig. 4, New York.

Phycis marginatus Rafinesque, Amer. Month. Mag., II, 1818, 205, Point Judith, R. I.

1672. Urophycis chesteri (Goode and Bean).

Off Massachusetts, in deep water; abundant.

Phycis chesteri Goode and Bean, Proc. U. S. Nat. Mus., I, 1878, 256, off Cape Ann, in 140 fathoms.

Genus 548. LÆMONEMA Günther.

Læmonema Günther, Cat., IV, 1862, 356 (*Phycis yarrellii* Lowe).

1673. Læmonema barbatulum Goode and Bean.

Gulf Stream.

Læmonema barbatula Goode and Bean, Bull. Mus. Comp. Zool., X, 1883, No. 5, 204, Gulf Stream, in lat. 32° 43' 25" N., long. 77° 20' 30" W., in 230 fathoms, and 38° 35' N., 73° 13' W.

1674. Læmonema melanurum Goode and Bean.

Caribbean Sea, north to New York.

Læmonema melanurum Goode and Bean, Oceanic Ichth., 1895, 363, lat. 30° 44' N., long. 79° 26' W., in 440 fathoms.

1675. Læmonema gracillipes Garman.

Galapagos Islands to Bay of Panama in deep water.

Læmonema gracillipes Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 187, Pl. XLII; off Galapagos Islands.

Genus 549. BROSME Oken. Cusk.

Brosme Oken, Isis, 1817, 1182 (*Gadus brosmе* Müller); after Les Brosmes Cuvier.

Brosmerus LeSueur, Mém. Mus. Hist. Nat. Paris, 1819, 158, Pl. XVI (*Brosmerus flavesny* LeSueur=*Gadus brosmе* Müller).

Brosmius Cuvier, Regne Anim., ed. 2, II, 1829, 354 (*Gadus brosmе* Müller).

1676. *Brosme brosme* (Müller). *Cusk; European cusk; Nejorpallujak; Torsk; Tusk.*
 Polar regions, south to Cape Cod.
Gadus brosme Müller, Prodr. Zool. Dan., 1776, 41, Denmark.
Gadus torsk Bonnaterre, Encycl. Meth. Ichth., 1788, 51, Sundmer, Norway; after Ström.
Brosmerus flavescens LeSueur, Mém., Mus. Hist. Nat. Paris, V, 1819, 158, Banks of Newfoundland; Marblehead, Mass.

Family 127. MERLUCCIIDÆ. Hakes

- Genus 550. MERLUCCIUS Rafinesque. *Hakes.*
Merluccius Rafinesque, Caratteri, 1810, 25 (*M. smiridus* Rafinesque = *Gadus merluccius* L.).
Onus Rafinesque, Indice, 1810, 12; substitute for *Merluccius*.
Merlangus Rafinesque, loc. cit., 167, another substitute for *Merluccius*.
Merlus Gay, in Guichenot, Pesces de Chile, II, 1848, 238 (*Merlus gayi* Guichenot).
Epicopus Gunther, Cat., II, 1860, 248 (*Merlus gayi* Guichenot).
1677. *Merluccius merluccius* (Linnæus). *European hake.*
 Coasts of Europe, straying to Greenland.
Gadus merluccius Linnæus, Syst. Nat., ed. X, 1758, 254, no locality; Europe.
Gadus ruber Lacépède, Hist. Nat. Poiss., V, 1803, 673, Scotland; Dieppe.
Gadus merlus Risso, Ichth. Nice, 1810, 122, Nice; after Linnæus.
Onus riali Rafinesque, Indice, 1810, 12, 67; substitute for *Gadus merluccius*.
Merlucius esculentus Risso, Europ. Mérid., III, 1826, 220, Nice.
Merluccius ambiguus Lowe, Proc. Zool. Soc. Lond., 1840, 37, Madeira.
Merlucius lanatus Gronow, Cat. Fishes, ed. Gray, 1854, 130, Mediterranean.
1678. *Merluccius bilinearis* (Mitchill). *Silver hake; New England hake; Whiting; Old England hake; Silverfish; American hake; Stockfish.*
 Coast of New York and northward.
Stomodon bilinearis Mitchill, Rept. Fish. N. Y., 1814, 7, New York.
Gadus albidus Mitchill, Jour. Acad. Nat. Sci. Phila., I, 1817, 409, New York.
1679. *Merluccius productus* (Ayres).
 Pacific coast, from San Diego northward to Washington.
Merlangus productus Ayres, Proc. Calif. Acad. Nat. Sci., I, 1855, 64 (65), no locality given; types from San Francisco market, probably from San Francisco Bay.
Homalopomus troubridgii Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 132, Astoria, Oreg.
1680. *Merluccius angustimanus* Garman.
 Off Panama, in deep water.
Merluccius angustimanus Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 183, Pl. XLI, fig. 1, off Bay of Panama.

Order GG. SALMOPERCÆ

Family 128. PERCOPSIDÆ. Sand rollers; Trout perch

- Genus 551. PERCOPSIS Agassiz.
Percopsis Agassiz, Lake Superior, 1850, 284 (*P. guttatus* Agassiz = *Salmo omiscomaycus* Walbaum).
Salmoperca Thompson, App. Hist. Vermont, 1853, 33 (*S. pellucida* Thompson = *Salmo omiscomaycus* Walbaum).

1681. *Percopsis omiscomaycus* (Walbaum). *Sand roller; Trout perch.*
 Lake Champlain and Delaware River to Ohio River, Kansas, and northward; Great Lakes; Hudson Bay; Red River of the North; Saskatchewan River.
Salmo omiscomaycus Walbaum, Artedi Pisc., 1792, 65, Hudson Bay.
Percopsis guttatus Agassiz, Lake Superior, 1850, 286, Lake Superior
Salmo perca pellucida Thompson, App. Hist. Vermont, 1853, 33, Lake Champlain.
Percopsis hammondii Gill, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 151, Kansas.
- Genus 552. COLUMBIA Eigenmann and Eigenmann.
Columbia Eigenmann and Eigenmann, Science, XX, Oct. 21, 1892, 233
 (*C. transmontana* Eigenmann and Eigenmann).
1682. *Columbia transmontana* Eigenmann and Eigenmann.
 Columbia River Basin; Umatilla and Wallula Rivers.
Columbia transmontana Eigenmann and Eigenmann, Science, XX, 1892, 233, mouth of Umatilla River, Oreg.

Order HH. XENARCHI

Family 129. APHREDODERIDÆ. Pirate perches

- Genus 553. APHREDODERUS LeSueur. *Pirate perches.*
Aphredoderus LeSueur, in Cuvier and Valenciennes, Hist. Nat. Poiss., IX, 1833, 329 (445), (*A. gibbosus* LeSueur=*Scolopsis sayanus* Gilliams).
Sternotremia Nelson, Bull. Ill. Lab. Nat. Hist., I, 1876, 39 (*S. isolepis* Nelson); young with the vent posterior.
Asternotremia Nelson, in Jordan, Bull. U. S. Nat. Mus., X, 1877, 51.
Aphododerus, attempted correction.
1683. *Aphredoderus sayanus* (Gilliams). *Pirate perch; Pirate; Mud perch.*
 From New York in coastwise streams to Texas; also in the Mississippi Basin, north to Michigan; abundant in sluggish waters.
Scolopsis sayanus Gilliams, Jour. Acad. Nat. Sci. Phila., IV, 1824, 81, near Philadelphia.
Aphredoderus gibbosus LeSueur, in Cuvier and Valenciennes, Hist. Nat. Poiss., IX, 1833, 331 (448), Lake Pontchartrain, La.
Sternotremia isolepis Nelson, Bull. Ill. Lab. Nat. Hist., I, 1876, 39, Calumet River, Ill.; young with vent posterior
Aphododerus cookianus Jordan, Proc. Acad. Nat. Sci. Phila., XXIX, 1877, 60, Sawyers Creek, Kendallville, Ind.
Asternotremia mesotrema Jordan, Bull. U. S. Nat. Mus., X, 1877, 52, Flint River, Ga.

Order II. ALLOTRIognathi

Suborder HISTICHTHYES

Family 130. LOPHOTIDÆ

- Genus 554. LOPHOTES Giorna.
Lophotes Giorna, Mém. Acad. Sci. Torino, XVI, 1805, 19 (*L. cepedianus* Giorna).
Leptopus Rafinesque, Specchio Scienze Palermo, I, 1814, 16 (*L. peregrinus* Rafinesque=*Lophotes cepedianus* Giorna).
Podoleptus Rafinesque, Anal. Nat., 1815, 93; a substitute for *Leptopus*; same type.
1684. *Lophotes cepedianus* Giorna.
 Open seas north to Long Beach, Calif. (W. F. Thompson), and to Japan, if *Lophotes capellei* is the same.
Lophotes cepedianus Giorna, Mém. Acad. Sci. Torino, XVI, 1803, 19, Mediterranean.
Leptopus peregrinus Rafinesque, Specchio Scienze Palermo, I, 1814, 16, Palermo.
 ?*Lophotes capellei* Schlegel, Fauna Japonica, 1845, 132, pl. 71, Japan.

Suborder TÆNIOSOMI

Family 131. TRACHIPTERIDÆ. King of the herrings

Genus 555. TRACHIPTERUS Gouan.

Trachipterus Gouan, Hist. Nat. Poiss., 1770, 103 (*T. gouani* Gouan = *Cephola trachyptera* Gmelin).

Trachipterus of authors; corrected spelling.

Bogmarus Schneider, Syst. Ichth., 1801, 518 (*B. islandicus* Schneider = *Trachipterus arcticus*).

Vogmarus Reid, Ann. Mag. Nat. Hist., III, 1849, 456 (*B. islandicus* Schneider); substitute name as the Danish name is Vaagmær.

1685. *Trachipterus arcticus* (Brünnich). *Dealfish*; *Vaagmar*.

Arctic Sea, Iceland to Norway.

Gymnogaster arcticus Brünnich, Nya. Handl., Dansk. Vidensk. Selsk. Skrifter, III, 1788, 408, Tab. B, figs. 1-3.

Bogmarus islandicus Schneider, Syst. Ichth., 1801, 518, Tab. 101.

Trachipterus bogmarus Cuvier and Valenciennes, Hist. Nat. Poiss., X, 1827?, 346.

Trachipterus vogmarus Reinhardt, Dansk. Vidensk. Selsk. Skrifter, VII, 1838, 71, with fig.

1686. *Trachipterus rex-salmonorum* Jordan and Gilbert. *King of the salmon*.

Off coast of California.

Trachipterus rex-salmonorum Jordan and Gilbert, Proc. Calif. Acad. Sci., 2d ser., IV, 1894, 144, pl. 9, open sea, outside Bay of San Francisco.

Trachipterus seleniris Snyder, Proc. Acad. Nat. Sci. Phila., LX, 1908, 319, Monterey; adult form.

1687. *Trachipterus trachyurus* Poey.

Cuba.

Trachipterus trachyurus Poey, Memorias, II, 1861, 420, Cuba.

Suborder ATELAXIA

Family 132. STYLEPHORIDÆ

Genus 556. STYLEPHORUS Shaw.

Stylephorus Shaw, Trans. Linn. Soc. Lond., I, 1791, 90 (*S. chordatus* Shaw).

1688. *Stylephorus chordatus* Shaw.

Open sea, Atlantic; very rare.

Stylephorus chordatus Shaw, Trans., Linn. Soc. Lond., I, 1791, 90, pl. 6, Atlantic, between Cuba and Martinique.

Order JJ. SELENICHTHYES

Family 133. LAMPRIDÆ. Opah; Moonfish

Genus 557. LAMPRIS Retzius.

Lampris Retzius, Vetensk. Akad. Nya Handl., XX, 1799, 91 (*Zeus guttatus* Brünnich = *Zeus regius* Bonnaterre).

Chrysotosus Lacépède, Hist. Nat. Poiss., III, 1803 (*Zeus luna* Gmelin).

Echemythes Gistel, Thierreich, X, 1848 (*Zeus luna* Gmelin).

1689. *Lampris regius* (Bonnaterre). *Mariposa*; *Opah*; *Moonfish*; *San Pedro fish*; *Cravo*; *Jerusalem haddock*; *Glancefish*; *Gudla*; *Poisson lune*.

Open seas, Atlantic and Pacific; Madeira; Newfoundland; Maine; Cuba; Monterey; Hawaii; Japan; recently taken off San Pedro.

Zeus regius ³⁹ Bonnaterre, Encycl. Meth. Ichth., 1788, 72, pl. 39, Torbay, England.

Zeus guttatus Brünnich, Danske Skrifter, III, 1788, 403, Elsinore, Denmark.

Zeus luna Gmelin, Syst. Nat., ed. XIII, 1789, 1225, Normandy.

³⁹ The name *regius* certainly has priority over *luna* and probably over *guttatus* also.

- Zeus stroemii* Walbaum, Artedi Pisc., ed. 2, 1792, 398, Norway; after Ström.
Scomber gunneri Bloch and Schneider, Syst. Ichth., 1801, 38, Thronhjem.
Zeus imperialis Shaw, Nat. Misc., IV, 1803, pl. 140, Torbay; after Pennant.
Zeus opah Shaw, Gen. Zool., IV, 1803, 287, Torbay; after Pennant.
Lampris lauta Lowe, Fishes Madeira, 1843, 27, Madeira.

Order KK. HETEROSOMATA. Flounders; Flatfishes

Family 134. BOTHIDÆ

Genus 558. LOPHOPSETTA Gill. *Windowpanes*.

Lophopsetta Gill, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 220 (*Pleuronectes maculatus* Mitchill).

1690. *Lophopsetta maculata* (Mitchill). *Windowpane*.
 Atlantic coast of United States, from Casco Bay to South Carolina; common.
Pleuronectes maculatus Mitchill, Rept. in part, Fish. N. Y., 1814, 9, New York.
Pleuronectes aquosus Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 389, pl. 2, fig. 3, New York
- Genus 559. PLATOPHRYS Swainson.
Platophrys Swainson, Nat. Hist. Fish., Reptiles and Amphib., II, 1839, 302 (*Pleuronectes ocellatus* Spix and Agassiz).
Pelora Cocco, Intern. Alcuni Pesci, etc., 1844, 21 (*P. heckeli* Cocco).
Coccolus Bonaparte loc. cit., 21 (*C. annectens* Cocco, a larva of *Platophrys*).
Bothus Bonaparte, Cat. Metod., 1846, 49 (*podas*); not of Rafinesque
Rhomboidichthys Bleeker, Act. Soc. Sci. Indo-Neder., I, 1856, 67 (*R. myriaster* Bleeker).
1691. *Platophrys spinosus* (Poey).
 West Indies.
Rhomboidichthys spinosus Poey, Synopsis, 1868, 409, Cuba.
1692. *Platophrys constellatus* Jordan.
 Galapagos Islands.
Platophrys constellatus Jordan, in Jordan and Goss, Rept. U. S. Fish Com., XIV, 1886 (1889), 266, James Island, Galapagos Islands.
1693. *Platophrys ocellatus* (Agassiz).
 Tropical America; sandy shores from Long Island to Rio Janeiro.
Rhombus ocellatus Agassiz, in Spix, Pisc. Brasil., 1829, 85, pl. 46, Brazil.
Rhombus bahianus Castelnau, Anim. Amer. Sud, 1855, Bahia.
Platophrys nebularius Jordan and Gilbert, Proc. U. S. Nat. Mus., VII, 1884, 31, Key West, Fla.
1694. *Platophrys maculifer* (Poey).
 West Indies.
 ?*Pleuronectes maculiferus* Poey, Memorias, II, 1861, 316, Cienfuegos, Cuba.
1695. *Platophrys ellipticus* (Poey).
 West Indies.
Pleuronectes ellipticus Poey, Memorias, II, 1861, 315, Cuba.
1696. *Platophrys lunatus* (Linnæus). *Peacock flounder*.
 West Indies.
Solea lunata et punctata (the sole) Catesby, Nat. Hist. Carolinas, 1725, Tab. 27, Bahamas.
Pleuronectes lunatus Linnæus, Syst. Nat., ed. X, 1758, 269, Bahamas; based on Catesby and the various copyists.
Pleuronectes argus Bloch, Ichthyologia, 1783, Tab. 48, Martinique; after Plumier.
 ?*Pleuronectes surinamensis* Bloch and Schneider, Syst. Ichth., 1801, 156, Surinam; *satis parva et glabra*.

1697. *Platophrys leopardinus* (Günther).
 Gulf of California.
Rhomboidichthys leopardinus Gunther, Cat., IV, 1862, 434, locality unknown.
Platophrys leopardinus Jordan, Proc. U. S. Nat. Mus., VII, 1884, 260, specimen from Guaymas, Sonora, Mexico.
- Genus 560. *SYACIUM* Ranzani.
Syacium Ranzani, Nov. Spec. Pisc., 1840, 20 (*S. micrurum* Ranzani).
Hemirhombus Bleeker, Versl. Akad. Amsterdam, XIII, 1862, 425 (*H. gunneensis* Bleeker).
Aramaca Jordan and Goss, in Jordan, Cat. Fish. N. Amer., 1885, 133 (*Citharichthys pætilus* Jordan and Gilbert=*Pleuronectes aramaca* Dönndorf=*Pleuronectes papillosus* Linnæus).
1698. *Syacium papillosum* (Linnæus).
 West Indies.
Aramaca Marcgrave, Hist. Pisc. Brasil., 1648, 181, Brazil.
Pleuronectes papillosus Linnæus, Syst. Nat., ed. X, 1758, 271, Brazil; based on Marcgrave.
Rhombus soleiformis Agassiz, in Spix, Pisc. Brasil., 1829, 86, Tab. 47, Atlantic Ocean.
1699. *Syacium micrurum* Ranzani.
 West Indies; Key West to Rio Janeiro.
Syacium micrurum Ranzani, Nov. Spec. Pisc. Diss. Sec., 1840, 20, pl. 5, Brazil.
Hypoglossus ocellatus Poey, Memorias, II, 1861, 314, Cuba.
Hemirhombus aramaca Gunther, Cat., IV, 1862, 42, Cuba; Jamaica; not *Rhombus aramaca* Cuvier.
Citharichthys æthalon Jordan, Proc. U. S. Nat. Mus., IX, 1886, 52, Habana.
1700. *Syacium latifrons* (Jordan and Gilbert).
 Pacific coast of tropical America; Panama.
Citharichthys latifrons Jordan and Gilbert, Bull. U. S. Fish Com., I, 1881, 334, Panama.
1701. *Syacium ovale* (Günther).
 Pacific coast of tropical America; Mazatlan to Panama.
Hemirhombus ovalis Günther, Proc. Zool Soc. Lond., 1864, 154, Panama.
- Genus 561. *CITHARICHTHYS* Bleeker. *Whiffs*.
Citharichthys Bleeker, Versl. Akad. Amsterd., XIII, 1862, 427 (*C. cayennensis* Bleeker=*C. spilopterus* Günther).
Orthopsetta Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 330 (*Psettichthys sordidus* Girard).
Metonops Gill, loc. cit., XVI, 1864, 198 (*M. cooperi* Gill=*Psettichthys sordidus* Girard).
- Subgenus *ORTHOPSETTA* Gill.
1702. *Citharichthys sordidus* (Girard).
 Pacific coast of North America, in water of moderate depth from British Columbia to Lower California.
Psettichthys sordidus Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 142, San Francisco; Tomales Bay.
Metaponops cooperi Gill, loc. cit., XVI, 1864, 198, Santa Barbara; shriveled specimen.
1703. *Citharichthys fragilis* Gilbert.
 Gulf of California.
Citharichthys fragilis Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 120, Gulf of California, east coast of Lower California.
1704. *Citharichthys xanthostigma* Gilbert.
 Magdalena Bay, west coast of Lower California to Hermosa Beach, southern California, and in Gulf of California.
Citharichthys xanthostigma Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 120, Gulf of California, west coast of Lower California, and Magdalena Bay.

1705. *Citharichthys stigmæus* Jordan and Gilbert.
Coast of southern California.
Citharichthys stigmæus Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 410, 411, Santa Barbara, Calif.
- Subgenus CITHARICHTHYS.
1706. *Citharichthys dinoceros* Goode and Bean.
Deep waters of Gulf of Mexico.
Citharichthys dinoceros Goode and Bean, Bull. Mus. Comp. Zool., XII, No. 5, 157, off Martinique, St. Lucia, and Barbados.
1707. *Citharichthys platophrys* Gilbert.
Southwest of Panama; one specimen known.
Citharichthys platophrys Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 454, Albatross station 2799, southwest of Panama.
1708. *Citharichthys arctifrons* Goode.
Deep waters of Gulf Stream.
Citharichthys arctifrons Goode, Proc. U. S. Nat. Mus., III, 1880, 341, 472, Gulf Stream off southern coast of New England.
1709. *Citharichthys unicornis* Goode.
Deep waters of Gulf Stream.
Citharichthys unicornis Goode, Proc. U. S. Nat. Mus., III, 1880, 342, Gulf Stream off southeast of New England.
1710. *Citharichthys uhleri* Jordan.
West Indies.
Citharichthys uhleri Jordan, Rept. U. S. Fish Com., XIV, 1886, 273, Haiti.
1711. *Citharichthys macrops* Dresel.
South Atlantic and Gulf coasts of the United States.
Citharichthys macrops Dresel, Proc. U. S. Nat. Mus., VII, 1884, 539, Pensacola, Fla.
1712. *Citharichthys spilopterus* Günther.
Both coasts of tropical America, north to New Jersey and Mazatlan.
Citharichthys spilopterus Günther, Cat., IV, 1862, 421, New Orleans, San Domingo, Jamaica.
Citharichthys cayennensis Bleeker, Compt. Rend. Acad. Sci. Amsterdam, XIII, 1862, 6, Cayenne, name only.
Citharichthys guatemalensis Bleeker, Nederl. Tijdschr. Dierk., 1864, 73, Guatemala.
Hemirhombus fuscus Poey, Synopsis, 1868, 406, Habana.
1713. *Citharichthys arenaceus* Evermann and Marsh.
Porto Rico and Santo Domingo.
Citharichthys arenaceus Evermann and Marsh, Bull. U. S. Fish Com., XX, first part, 1900 (1902), 326, fig. 106, Mayaguez, Porto Rico.
1714. *Citharichthys gilberti* Jenkins and Evermann.
Pacific coast of tropical America, from Gulf of California to Panama.
Citharichthys gilberti Jenkins and Evermann, Proc. U. S. Nat. Mus., XI, 1888, 157, Guaymas, Mexico.
Citharichthys sumichrasti Jordan and Goss, Rept. U. S. Fish Com., XIV, 1886 (1889) 276, Rio Zanatenco, Chiapas, Mexico.
- Genus 562. ETROPUS Jordan and Gilbert.
Etropus Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 364 (*E. crossotus* Jordan and Gilbert).
1715. *Etropus microstomus* (Gill).
Coast of New Jersey.
Citharichthys microstomus Gill, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 223, Beesleys Point, N. J.
1716. *Etropus micro* (Fowler).
Citharichthys micro Fowler, Proc. Acad. Nat. Sci. Phila., LXIII, 1911, 200, with figure, Corsons Inlet, Cape May, N. J.

1717. *Etropus rimosus* Goode and Bean.
Gulf of Mexico.
Etropus rimosus Goode and Bean, Proc. U. S. Nat. Mus., VIII, 1885, 593, coast of Florida between Pensacola and Cedar Keys, in 21 fathoms.
1718. *Etropus crossotus* Jordan and Gilbert.
Tropical America on both coasts, north to Guaymas, Mexico, and Cape Hatteras, N. C.
Etropus crossotus Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 364, Mazatlan, Mexico.
- Genus 563. **PERISSIAS** Jordan and Evermann.
Perissias Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2667 (*Platophrys tæniopterus* Gilbert).
1719. *Perissias tæniopterus* (Gilbert).
Gulf of California and western coast of Lower California.
Platophrys tæniopterus Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 118, Gulf of California north of La Paz, at *Albatross* station 2298, lat. 24° 51' N., long. 110° 39' W., in 40 fathoms.
- Genus 564. **ENGYOPHRYS** Jordan and Bollman.
Engyophrys Jordan and Bollman, Proc. U. S. Nat. Mus., XII, 1889 (1890), 176 (*E. sancti-laurentii* Jordan and Bollman).
1720. *Engyophrys sancti-laurentii* Jordan and Bollman.
Pacific Ocean off coast of Colombia.
Engyophrys sancti-laurentii Jordan and Bollman, Proc., U. S. Nat. Mus., XII, 1889, 176, Pacific Ocean off coast of Colombia, at *Albatross* station 2805, 7° 56' N., 79° 41' 30" W., and station 2795, lat. 7° 57' N., long. 78° 55' W., in 33 and 51 fathoms.
- Genus 565. **TRICHOPSETTA** Gill.
Trichopsetta Gill, Proc. U. S. Nat. Mus., XI, 1888, 601 (*Arnoglossus ventralis* Goode and Bean).
1721. *Trichopsetta ventralis* (Goode and Bean).
Gulf of Mexico, in deep water.
Cutharichthys ventralis Goode and Bean, Proc. U. S. Nat. Mus., VIII, 1885, 592, Gulf of Mexico, *Albatross* station 2386, lat. 29° 15' N., long. 88° 6' W., in 60 fathoms.
- Genus 566. **MONOLENE** Goode.
Monolene Goode, Proc., U. S. Nat. Mus., III, 1880, 338 (*M. sessilicauda* Goode).
Thyris Goode, loc. cit., 344 (*T. pellucidus* Goode); larva of *Monolene*.
Delothyris Goode, loc. cit., VI, 1883, 110; substitute for *Thyris*, preoccupied.
1722. *Monolene sessilicauda* Goode.
Deep waters of the Gulf Stream.
Monolene sessilicauda Goode, Proc. U. S. Nat. Mus., III, 1880, 337, 338, deep sea south of New England.
Thyris pellucidus Goode, loc. cit., 344, Gulf Stream off the coast of Rhode Island.
1723. *Monolene atrimana* Goode and Bean.
Deep waters of the Caribbean Sea.
Monolene atrimana Goode and Bean, Bull. Mus. Comp. Zool., XII, 1886, 155, deep waters off Barbados.
- Genus 567. **CYCLOPSETTA** Gill.
Cyclopsetta Gill, Proc. U. S. Nat. Mus., XI, 1888, 601 (*Hemirhombus fimbriatus* Goode and Bean).
1724. *Cyclopsetta fimbriata* (Goode and Bean).
Deep waters of the Gulf of Mexico.
Hemirhombus fimbriatus Goode and Bean, Proc. U. S. Nat. Mus., VIII, 1885, 591, deep waters of the Gulf of Mexico, between the Mississippi Delta and Cedar Keys, Fla.

- 1725. *Cyclopsetta querna*** (Jordan and Bollman).
Pacific coast of America, off coast of Colombia.
Azevia querna Jordan and Bollman, Proc. U. S. Nat. Mus., XII, 1889,
174, Pacific Ocean off coast of Colombia, at Albatross station 2802,
lat. 8° 38' N., long. 79° 31' 30'' W.
- 1726. *Cyclopsetta chittendeni*** B. A. Bean.
Trinidad Island
Cyclopsetta chittendeni B. A. Bean, Proc. U. S. Nat. Mus., XVII, 1894,
635, Trinidad Island.
- Genus 568. AZEVIA** Jordan and Goss.
Azevia Jordan and Goss, Rept. U. S. Fish Com., XIV, 1886 (1888),
271 (*Citharichthys panamensis* Steindachner).
- 1727. *Azevia panamensis*** (Steindachner).
Pacific coast of Central America.
Citharichthys panamensis Steindachner, Ichth. Beitr., III, 1875, 62,
Panama.
- Genus 569. PLATOTICHTHYS** Nichols.
Platotichthys Nichols, Bull. Amer. Mus. Nat. Hist., XLIV, 1921, 21
(*P. charles* Nichols).
- 1728. *Platotichthys charles*** Nichols.
Bahamas.
Platotichthys charles Nichols, Bull. Amer. Mus. Nat. Hist., XLIV,
1921, 21, pl. III, Turk Island, Bahamas.
- Family 135. HIPPOGLOSSIDÆ. Halibuts**
- Genus 570. ATHERESTHES** Jordan and Gilbert.
Atheresthes Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 51
(*Platysomatichthys stomias* Jordan and Gilbert).
- 1729. *Atheresthes stomias*** (Jordan and Gilbert). *Arrow-toothed halibut*.
San Francisco to Alaska.
Platysomatichthys stomias Jordan and Gilbert, Proc. U. S. Nat. Mus.,
III, 1880, 301, off San Francisco, Calif.
- Genus 571. REINHARDTIUS** Gill.
Reinhardtius Gill, Cat. Fishes East Coast N. Amer., Suppl. Proc. Acad.
Nat. Sci. Phila., XIII, 1861, 50 (*Pleuronectes cynoglossus* Fabricius; not
of Linnæus = *Pleuronectes hippoglossoides* Walbaum).
Platysomatichthys Bleeker, Versl. Akad. Amsterdam, XIII, 1862, 426
(*Pleuronectes pinguis* Fabricius).
- 1730. *Reinhardtius hippoglossoides*** (Walbaum). *Greenland halibut*.
Arctic parts of the Atlantic, south to Finland and Grand Banks.
Pleuronectes cynoglossus Fabricius, Fauna Grœnlandica, 1780, 163,
Greenland; not of Linnæus.
Pleuronectes hippoglossoides Walbaum, Artedi Pisc., 1792, 115; based
on Fabricius.
Pleuronectes pinguis Fabricius, Zoologiske Bidrag., 1824, 43, Greenland.
Hippoglossus grœnlandicus Günther, Cat., IV, 1862, 404, Greenland.
- Genus 572. HIPPOGLOSSUS** Cuvier. *Halibut*.
Hippoglossus Cuvier, Règne Anim., ed. 1, II, 1817, 221 (*Pleuronectes
hippoglossus* Linnæus).
- 1731. *Hippoglossus hippoglossus*** (Linnæus). *Common halibut*.
All northern seas, southward in deep waters to France, Sandy Hook,
and northern California.
Pleuronectes hippoglossus Linnæus, Syst. Nat., ed. X, 1758, 269,
European oceans.
Hippoglossus maximus Gottsche, Archiv für Naturgesch., 1835, 164,
no locality.
Hippoglossus gigas Swainson, Nat. Hist. Class'n Anim., II, 1839, 302,
no locality.
Hippoglossus ponticus Bonaparte, Cat. Metod., 1846, 47, Black Sea;
after Pallas.

Genus 573. LYOPSETTA Jordan and Goss.

Lyopsetta Jordan and Goss, in Jordan, Cat. Fish. N. Amer., 1885, 135
(*Hippoglossoides exilis* Jordan and Gilbert).

1732. *Lyopsetta exilis* (Jordan and Gilbert).

North Pacific, in rather deep water; San Francisco to Alaska.

Hippoglossoides exilis Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, off San Francisco, between the Golden Gate and Point Reyes, Calif.

Genus 574. HIPPOGLOSSOIDES Gottsche.

Hippoglossoides Gottsche, Archiv für Naturgesch., 1835, 164 (*Pleuronectes lmanda* Linnæus).

Citharus Reinhardt, Kong. Dansk. Vid Selsk., 1838, 116 (*Pleuronectes platessoides* Fabricius; not *Citharus* Bleeker, 1862).

Drepanopsetta Gill, Cat. Fish. East Coast N. Amer., Suppl. Proc. Acad. Nat. Sci. Phila., XIII, 1861, 50 (*Pleuronectes platessoides* Fabricius).

Pomatopsetta Gill, Proc., Acad. Nat. Sci. Phila., XVI, 1864, 217 (*Platessa dentata* = *Pleuronectes platessoides* Fabricius).

1733. *Hippoglossoides platessoides* (Fabricius). *Sand dab*; *Dab*.

North Atlantic, south to Cape Cod, and coasts of England and Scandinavia.

Pleuronectes linguatula Müller, Prodr. Zool. Dan., 1776, 45; not of Linnæus.

Pleuronectes platessoides Fabricius, Fauna Groenlandica, 1780, 164, Greenland.

Pleuronectes lmandoides Bloch, Naturgesch. Ausl. Fische, III, 1787, 24, Tab. 186, Europe.

1734. *Hippoglossoides elassodon* Jordan and Gilbert

Puget Sound and northward.

Hippoglossoides elassodon Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 278, Puget Sound at Seattle and Tacoma, Wash.

1735. *Hippoglossoides robustus* Gill and Townsend.

Bering Sea.

Hippoglossoides robustus Gill and Townsend, Proc. Biol. Soc. Wash., XI, 1897 (Sept. 17), Bering Sea, lat. 56° 14' N., long. 164° 08' W., Albatross station 3541 in 49 fathoms.

1736. *Hippoglossoides hamiltoni* Jordan and Gilbert.

Off Dalnoi Point, Kamchatka.

Hippoglossoides hamiltoni Jordan and Gilbert, Rept. Fur-seal Invest., 1898, 489, Dalnoi Point, Avatcha Bay, Kamchatka, in 16 fathoms.

Genus 575. EOPSETTA Jordan and Goss.

Eopsetta Jordan and Goss, in Jordan, Cat. Fish. N. Amer., 1885, 135
(*Hippoglossoides jordani* Lockington).

1737. *Eopsetta jordani* (Lockington). *California sole*.

West coast of United States, from Puget Sound to Monterey

Hippoglossoides jordani Lockington, Proc. U. S. Nat. Mus., II, 1879, 73, San Francisco.

Genus 576. PSETTICHTHYS Girard.

Psettichthys Girard, Proc. Acad. Nat. Sci. Phila., VI, 1854, 140 (*P. melanostictus* Girard).

1738. *Psettichthys melanostictus* Girard.

Pacific coast of North America from Alaska south to Monterey.

Psettichthys melanostictus Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 140, San Francisco; Astoria, Oreg.

Family 136. PARALICHTHYIDÆ. Bastard halibuts**Genus 577. HIPPOGLOSSINA** Steindachner.

Hippoglossina Steindachner, Ichth. Beitr., V, 1876, 13 (*H. macrops* Steindachner).

1739. *Hippoglossina stomata* Eigenmann and Eigenmann.
Off San Diego, Calif.
Hippoglossina stomata Eigenmann and Eigenmann, Proc. Calif. Acad. Sci., 2d ser., III, 1890, 22, San Diego, Calif.
1740. *Hippoglossina macrops* Steindachner.
Pacific coast of Mexico at Mazatlan.
Hippoglossina macrops Steindachner, Ichth. Beitr., V, 1876, 13, pl. 3, Mazatlan, Mexico.
1741. *Hippoglossina bollmani* Gilbert.
Pacific coast off Colombia.
Hippoglossina macrops Jordan and Bollman, Proc. U. S. Nat. Mus., XII, 1889, 175; not of Steindachner.
Hippoglossina bollmani Gilbert, loc. cit., XIII, 1890, 122, off coast of Colombia at Albatross station 2805, lat. 7° 56' N., long. 79° 41' 30" W. in 51½ fathoms.
1742. *Hippoglossina sabanensis* Boulenger.
Isthmus of Panama.
Hippoglossina sabanensis Boulenger, Bolletino Mus. Zool. Univ. Torino, XIV, 1899, 4, Rio Sabana, Darien.
- Genus 578. *LIQGLOSSINA* Gilbert.
Lioglossina Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 122 (*L. tetraphthalma* Gilbert).
1743. *Lioglossina tetraphthalma* Gilbert.
Gulf of California.
Lioglossina tetraphthalmus Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 122, Gulf of California, Albatross stations 3014 and 3016, in 29 and 76 fathoms.
- Genus 579. *VERASPER* Jordan and Gilbert.
Verasper Jordan and Gilbert, Rept. Fur-seal Invest., 1898, 490 (*V. moseri* Jordan and Gilbert).
1744. *Verasper moseri* Jordan and Gilbert.
Kuril Islands.
Verasper moseri Jordan and Gilbert, Rept. Fur-seal Invest., 1898, 490, Pl. LXXXV, Shana Bay, Iturup Island, Kuril Group.
- Genus 580. *XYSTREURYS* Jordan and Gilbert.
Xystreurus Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 34 (*X. holepis* Jordan and Gilbert).
1745. *Xystreurus liolepis* Jordan and Gilbert.
Coast of California, from Point Conception southward.
Xystreurus liolepis Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 34, Santa Barbara, Calif.
- Genus 581. *PARALICHTHYS* Girard. *Bastard halibuts*.
Paralichthys Girard, Pac. R. R. Surv., X, 1859, 146 (*P. maculosus* Girard).
Chænopsetta Gill, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 218 (*Platessa oblonga* Storer).
Pseudorhombus Bleeker, Compt. Rend. Acad. Sci. Amsterdam, XIII, 1862, 5 (*Rhombus polyspilus* Bleeker).
Uropsetta Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 330 (*Hippoglossus californicus* Ayres).
1746. *Paralichthys californicus* (Ayres). *Bastard halibut*; *Monterey halibut*.
Coast of California, Tomales Bay to San Diego
Hippoglossus californicus Ayres, Proc. Calif. Acad. Nat. Sci., ser. 1, II, 1859, 29, and 1860, fig. 10, San Francisco.
1747. *Paralichthys magdalenæ* Abbott.
Coast of Lower California.
Paralichthys magdalenæ Abbott (James Francis), in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2871, Magdalena Bay, Lower California.

1748. *Paralichthys æstuarius* Gilbert and Scofield.
Mouth of Colorado River, Gulf of California.
Paralichthys æstuarius Gilbert and Scofield, Proc. U. S. Nat. Mus., XX, 1898, 499, Pl. XXIX, Shoal Point, mouth of the Colorado River.
1749. *Paralichthys brasiliensis* (Ranzani).
Atlantic coast of South America; said to range northward to Guatemala.
Hippoglossus brasiliensis Ranzani, Nov. Spec. Pisc., 1840, 10, Tab. 3, Brazil.
Pseudorhombus vorax Gunther, Cat., IV, 1862, 429, South America.
1750. *Paralichthys woolmani* Jordan and Williams.
Guaymas to Panama.
Paralichthys woolmani Jordan and Williams, in Gilbert, Proc. U. S. Nat. Mus., XIX, 1896, 457, Galapagos Islands.
1751. *Paralichthys sinaloæ* Jordan and Abbott.
Pacific coast of Mexico.
Paralichthys sinaloæ Jordan and Abbott (J. F.), in Jordan and Evermann, Fish. North and Mid. Amer., 1898, 2872, Mazatlan and La Paz.
1752. *Paralichthys dentatus* (Linnæus). *Summer flounder; Fluke.*
Atlantic coast of United States from Cape Cod to Florida.
Pleuronectes dentatus Linnæus, Syst. Nat., ed. XII, 1766, and of numerous copyists.
Pleuronectes melanogaster Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 390, New York; doubled example.
Platessa ocellaris DeKay, N. Y. Fauna: Fishes, 1842, 300, p. 47, fig. 152, New York.
Paralichthys ophryas Jordan and Gilbert, Synopsis, 1883, 822, Charleston, S. C.
1753. *Paralichthys lethostigmus* Jordan and Gilbert. *Southern flounder.*
South Atlantic and Gulf coasts of the United States, north to New York.
Platessa oblonga DeKay, N. Y. Fauna: Fishes, 1842, 299, pl. 48, fig. 156, New York; not *Pleuronectes oblongus* Mitchill.
Paralichthys lethostigma Jordan and Gilbert, Proc. U. S. Nat. Mus., VII, 1884, 237, Jacksonville, Fla.
1754. *Paralichthys oblongus* (Mitchill). *Four-spotted flounder.*
Coasts of New England and New York.
Pleuronectes oblongus Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 391, New York.
1755. *Paralichthys squamilentus* Jordan and Gilbert.
South Atlantic and Gulf coasts of United States.
Paralichthys squamilentus Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 303, Pensacola, Fla.
1756. *Paralichthys albiguttus* Jordan and Gilbert. *Gulf flounder.*
South Atlantic and Gulf coasts of the United States.
Paralichthys albigutta Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 302, Pensacola, Fla., and Beaufort, N. C.
- Genus 582. **ANCYLOPSETTA** Gill.
Ancylosetta Gill, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 224 (*A. quadrocellatus* Gill).
1757. *Ancylosetta quadrocellatus* Gill.
South Atlantic and Gulf coasts of the United States.
Ancylosetta quadrocellatus Gill, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 224, Pensacola; not *Platessa quadrocellata* Storer.
Paralichthys ommatus Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 616, Charleston, S. C.
- Genus 583. **RAMULARIA** Jordan and Evermann.
Ramularia Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2633 (*Ancylosetta dendritica* Gilbert).
1758. *Ramularia dendritica* (Gilbert).
Gulf of California.
Ancylosetta dendritica Gilbert, Proc., U. S. Nat. Mus., XIII, 1890, 121, Gulf of California, at Albatross station 3022, lat. 30° 58' 30" N., long. 113° 17' 15" W., in 11 fathoms.

Genus 584. NOTOSEMA Goode and Bean.

Notosema Goode and Bean, Bull. Mus. Comp. Zool., X, 1882, 193 (*N. dilecta* Goode and Bean).

1759. Notosema dilectum Goode and Bean.

Gulf Stream.

Notosema dilecta Goode and Bean, Bull. Mus. Comp. Zool., X, 1883, 193, Gulf Stream off the coast of South Carolina.

Genus 585. GASTROPSETTA B. A. Bean.

Gastropsetta Bean, Proc. U. S. Nat. Mus., XVII, 1894, 633 (*G. frontalis* Bean).

1760. Gastropsetta frontalis B. A. Bean.

Key West and Apalachicola, Fla.

Gastropsetta frontalis B. A. Bean, Proc. U. S. Nat. Mus., XVII, 1894, 633, Key West and Apalachicola, at Albatross stations 2317 and 2783, in 45 fathoms.

Family 137. PLEURONECTIDÆ**Genus 586. PLEURONICHTHYS** Girard.

Pleuronichthys Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1854, 139 (*P. cænosus* Girard).

Heteroprosopon Bleeker, Versl. Akad. Amsterdam, XIII, 1862 (*Pleuronectes cornutus* Temminck and Schlegel).

Parophrys Gunther, Cat., IV, 1862, 454; not of Girard.

1761. Pleuronichthys decurrens Jordan and Gilbert.

Pacific coast of United States, south to Monterey.

Pleuronichthys decurrens Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 453, San Francisco; Monterey Bay.

1762. Pleuronichthys verticalis Jordan and Gilbert.

Coast of California, in deep water.

Pleuronichthys verticalis Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 49, San Francisco.

1763. Pleuronichthys cænosus Girard.

Alaska, southward to San Diego; most common about Puget Sound.

Pleuronichthys cænosus Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 139, San Francisco.

1764. Pleuronichthys nephelus Starks and Thompson.

Puget Sound.

Pleuronichthys nephelus Starks and Thompson, Proc. U. S. Nat. Mus., XXXVIII, 1911, 282, fig. 1, San Juan Islands, Wash.

1765. Pleuronichthys ritteri Starks and Morris.

San Diego Bay.

Pleuronichthys ritteri Starks and Morris in Starks & Thompson, Proc. U. S. Nat. Mus., XXXVIII, 1911, 287, San Diego, Calif.

1766. Pleuronichthys ocellatus Starks and Thompson.

Gulf of California.

Pleuronichthys ocellatus Starks and Thompson, Proc. U. S. Nat. Mus., XXXVIII, 1911, 285, fig. 2, Gulf of California.

Genus 587. HYP SOPSETTA Gill.

Hypsopsetta Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 330 (*Pleuronichthys guttulatus* Girard).

1767. Hypsopsetta guttulata (Girard). *Diamond flounder*.

Coast of California, Cape Mendocino to Magdalena Bay.

Pleuronichthys guttulatus Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 137, Tomales Bay, Calif.

Parophrys ayresi Gunther, Cat., IV, 1862, 457, San Francisco.

Genus 588. PAROPHRYS Girard.

Parophrys Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 139 (*P. vetulus* Girard).

1768. *Parophrys vetulus* Girard.

Pacific coast of North America, Alaska to Santa Barbara.

Parophrys vetulus Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 140, California.*Pleuronectes diagrammus* Günther, Cat., IV, 1862, 445, Victoria, British Columbia.*Parophrys hubbardii* Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 281, San Francisco.Genus 589. *PLEURONECTES* Linnæus. *Plaice*.*Pleuronectes* Artedi, Genera Pisc., in part, 1738, 16.*Pleuronectes* Linnæus, Syst. Nat., ed. X, 1758, 268; after Artedi (*P. platessa* Linnæus).*Platessa* Cuvier, Règne Anim., ed. I, II, 1817, 220 (*Pleuronectes platessa* L.).1769. *Pleuronectes quadrituberculatus* Pallas.

Coasts of Alaska and Kamchatka.

Pleuronectes quadrituberculatus Pallas, Zoogr. Rosso-Asiat., III, 1811, 423, sea between Kamchatka and Alaska.*Pleuronectes pallasi* Steindachner, Ichth. Beitr., VIII, 1879, Kamchatka.Genus 590. *PLATICHTHYS* Girard. *Starry flounders*.*Platichthys* Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 139 (*P. rugosus* Girard = *Pleuronectes stellatus* Pallas).1770. *Platichthys stellatus* (Pallas). *Great flounder; California flounder.*

Pacific coast of America, from Point Conception to the Arctic Ocean, and south to Sakhalin Island.

Pleuronectes stellatus Pallas, Zoogr. Rosso-Asiat., III, 1811, 416, Kamchatka, Aleutian and Kuril Islands.*Platichthys rugosus* Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 139, 155, San Francisco, Presidio; Petaluma, Calif.Genus 591. *INOSETTA* Jordan and Goss.*Inopsetta* Jordan and Goss, Rept. U. S. Fish Com., 1885 (1887), 924 (136 of inside paging) (*Parophrys ischyryus* Jordan and Gilbert).1771. *Inopsetta ischyra* (Jordan and Gilbert).

Puget Sound, probably northward to Alaska.

Parophrys ischyryus Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 276, 453, Puget Sound.Genus 592. *LEPIDOPSETTA* Gill.*Lepidopsetta* Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 330 (*Psetichthys umbrosus* Girard).1772. *Lepidopsetta bilineata* (Ayres).

Pacific coast of North America, Alaska to Monterey and northern Japan.

Platessa bilineata Ayres, Proc. Calif. Acad. Nat. Sci., I, 1855, 40 (39 of reprint), San Francisco.*Platichthys umbrosus* Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 136, Puget Sound.*Pleuronectes perarcuatus* Cope, Proc. Amer. Phil. Soc. Phila., XIII, 1873, 32, Unalaska.Genus 593. *ISOPSETTA* Lockington.*Isopsetta* Lockington, in Jordan and Gilbert, Bull. U. S. Nat. Mus., XVI, 1882, 832 (*Lepidopsetta isolepis* Lockington).1773. *Isopsetta isolepis* (Lockington).

Puget Sound to Point Conception, in rather deep water.

Lepidopsetta isolepis Lockington, Proc. U. S. Nat. Mus., III, 1880, 325, San Francisco.Genus 594. *LIMANDA* Gottsche. *Mud dabs*.*Limanda* Gottsche, Archiv für Naturgesch., 1835, 100 (*Pleuronectes limanda* Linnæus).*Myzopsetta* Gill, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 217 (*Platessa ferruginea* Storer).

1774. *Limanda ferruginea* (Storer).
Atlantic coast of North America, Labrador to New York.
Platessa ferruginea D. H. Storer, Rept. Fish. Mass., 1839, 141, pl. 2, Cape Ann.
Platessa rostrata H. R. Storer, Bost. Jour. Nat. Hist., VI, 1850, 268, Labrador.
1775. *Limanda aspera* (Pallas).
Coasts of Alaska and Kamchatka.
Pleuronectes asper Pallas, Zoogr. Rosso-Asiat., III, 1811, 425, east coast of Siberia.
1776. *Limanda proboscidea* Gilbert.
Bristol and Herendeen Bays, Alaska.
Limanda proboscidea Gilbert, Rept. U. S. Fish Com., XIX, 1893 (1896), 460, pl. 33, Bristol and Herendeen Bays, Alaska.
1777. *Limanda beanii* Goode.
Deep water, off coast of New England.
Limanda beanii Goode, Proc. U. S. Nat. Mus., III, 1880 (Feb. 16, 1881), 473 southern coast of New England, *Fish Hawk* stations 875, 876.
- Genus 595-596. PSEUDOPLEURONECTES Bleeker. *Winter flounders*.
Pseudopleuronectes Bleeker, Versl. Akad. Amsterdam, XIII, 1862, 428
(*Platessa plana* Mitchell = *Pleuronectes americanus* Walbaum).
1778. *Pseudopleuronectes americanus* (Walbaum). *Common flatfish; Winter flounder; Roughback*.
Atlantic coast of North America, from Labrador to Cape Lookout.
Flounder Schopf, Schrift. Gesellsch. Naturf. Freunde, VIII, 1788, 148, New York.
Pleuronectes americanus Walbaum, Artedi Pisc., 1792, 113; based on the *Flounder* of Schöpf.
Pleuronectes planus Mitchell, Trans. Lit. Phil. Soc. N. Y., I, 1815, 387, New York.
Platessa pusilla DeKay, New York Fauna: Fishes, 1842, 296, pl. 47, fig. 153, New York.
1779. *Pseudopleuronectes dignabilis* Kendall. *Lemon-yellow flounder*.
North Atlantic coast, Newfoundland to Cape Cod.
Pseudopleuronectes dignabilis Kendall, Bull. U. S. Fish Com., XXX, 1910 (1912), 392, Georges Bank.
- Genus 597. LIOPSETTA Gill.
Liopsetta Gill, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 216 (*Platessa glabra* Storer).
Euchalarodus Gill, loc. cit., 221 (*E. putnami* Gill, the male of *Liopsetta glabra* Storer).
1780. *Liopsetta glacialis* (Pallas). *Arctic flounder*.
Arctic Ocean and Bering Sea south to St. Michaels, Alaska.
Pleuronectes glacialis Pallas, Itin., III, App, 1776, 706; mouth of the Obi River.
Pleuronectes cicatricosus Pallas, Zoogr. Rosso-Asiat., III, 1811, 424, sea between Kamchatka and Alaska; male.
? *Platessa dvinensis* Lilljeborg, Veb. Ab. Handl, 1850, 360, Tab. 20, mouth of River Dwina.
Pleuronectes franklini Günther, Cat., IV, 1862, 442, Arctic seas of America; female.
1781. *Liopsetta putnami* (Gill). *El-back flounder*.
Atlantic coast of North America, from Cape Cod northward to Labrador and beyond.
Platessa glabra Storer, Proc. Bost. Soc. Nat. Hist., 1843, 130, Massachusetts; female; not *Platessa glabra* of Rathke, 1837, a species of *Flesus*.
Euchalarodus putnami Gill, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 216, 221, Salem, Mass.

1782. *Liopsetta obscura* (Herzenstein).

Sea of Okhotsk.

Pleuronectes obscurus Herzenstein, *Mélanges Biologiques*, 1890, 127, Manchuria.Genus 598. MICROSTOMUS Gottsche. *Smear dabs*.*Microstomus* Gottsche, *Archiv für Naturgesch.*, 1835, 150 (*M. latidens* Gottsche); not *Microstoma* Risso, 1826.*Cynoglossus* Bonaparte, *Fauna Italica*, 1837, fasc. XIX (*Pleuronectes cynoglossus* Nilsson); not of Linnæus = *Pleuronectes kitt* Walbaum.*Cynoglossa* Bonaparte, *Cat. Metod*, 1845, 48 (*Pleuronectes cynoglossus* Linnæus).*Brachyprosopon* Bleeker, *Versl. Akad. Amsterdam*, XIII, 1862, 428 (*Pleuronectes microcephalus* Donovan = *P. kitt* Walbaum).*Cynoglossus* Jordan and Gilbert, *Synopsis*, 1883, 460 (*Pleuronectes microcephalus* Donovan), *microstomus* being regarded as preoccupied.1783. *Microstomus kitt* (Walbaum). *Smear dab*.

Arctic Europe, west to the sea between Greenland and Iceland.

Rhombus lævis cornubiensis Jago in Ray, "Syn. Pisc.", 1713, 162, Tab. 1, fig. 1."*Smear dab* Pennant, *British Zoology*, III, 1776, 230, pl. 41.*Pleuronectes kitt* Walbaum, *Artedi Pisc.*, III, 1792, 120; after Ray.*Pleuronectes quenseli* Holboll, *Bohusläns*, Sweden.*Pleuronectes quadridens* Fabricius, *Afhandl., Kongl. Dansk. Vid. Selsk.*, I, 1824, 39, Iceland.*Microstomus latidens* Gottsche, *Archiv für Naturgesch.*, 1835, 150, Zealand.*Pleuronectes gilli* Steindachner, *Ichth. Notizen*, VII, 1868, polar sea, north of Iceland.1784. *Microstomus pacificus* (Lockington).

Pacific coast of North America, Monterey to Vancouver Island and probably northward.

Glyptocephalus pacificus Lockington, *Rept. Calif. Com. Fish.*, 1878-79, 43, off Point Reyes, Calif.

Genus 599. EMBASSICHTHYS Jordan and Evermann.

Embassichthys Jordan and Evermann, *Cheek List*, 1895 (1896), 506 (*Cynoglossus bathybius* Gilbert).1785. *Embassichthys bathybius* (Gilbert).

Coast of California, south of Point Conception.

Cynoglossus bathybius Gilbert, *Proc. U. S. Nat. Mus.*, XIII, 1890, 123, Santa Barbara Channel at Albatross station 2980, lat. 33° 49' 45" N., long. 119° 24' 30" W., in 603 fathoms.

Genus 600. GLYPTOCEPHALUS Gottsche.

Glyptocephalus Gottsche, *Archiv für Naturgesch.*, 1835, 156 (*Pleuronectes saxicola* Fabricius = *P. cynoglossus* Linnæus).1786. *Glyptocephalus cynoglossus* (Linnæus). *Craig fluke; Pole flounder; Gray sole; Lemon sole*.North Atlantic, chiefly in deep water, south to Cape Cod and France. *Pleuronectes cynoglossus* Linnæus, *Syst. Nat.*, ed. X, 1758, 269; after Gronow.*Pleuronectes saxicola* Faber, *Tidsskr. für Naturv.*, 5 B., 1828, 244, Denmark.*Glyptocephalus acadianus* Gill, *Proc. Acad. Nat. Sci. Phila.*, XXV, 1873, 360, Nova Scotia.

Genus 601. ERREX Jordan.

Errex Jordan, *Proc. Acad. Nat. Sci. Phila.*, LXXI, 1919, 343 (*Glyptocephalus zachirus* Lockington).1787. *Errex zachirus* (Lockington). *Rex sole; Long-finned sole*.

Waters of moderate depth of the northern Pacific; from San Francisco northward.

Glyptocephalus zachirus Lockington, *Proc. U. S. Nat. Mus.*, II, 1879, 88, San Francisco.

Family 138. ACHIRIDÆ. Broad soles

Subfamily GYMNACHIRINÆ

Genus 602. GYMNACHIRUS Kaup.

Gymnachirus Kaup, Wiegmann's Archiv, I, 1858, 101 (*Gymnachirus nudus* Kaup).

1788. *Gymnachirus nudus* Kaup.

Coast of Brazil; once taken at Tisbury Great Pond, Martha's Vineyard Island, Mass. (Vinal N. Edwards).

Gymnachirus nudus Kaup, Wiegmann's Archiv, I, 1858, 101, Brazil

1789. *Gymnachirus fasciatus* Gunther.

West Indies; very rare, north to Long Key, Fla. (W. C. Kendall).

Gymnachirus fasciatus Gunther, Cat., IV, 1862, 488, locality unknown.

Subfamily ACHARINÆ

Genus 603. ACHIRUS Lacépède.

Achirus Lacépède, Hist. Nat. Poiss., IV, 1803, 658 (*Pleuronectes achirus* Linnæus).

Trinectes Rafinesque, Atlantic Jour. and Friend of Knowledge, I, 1832 (*T. scabra* Rafinesque=*Pleuronectes mollis* Mitchill)

Grammichthys Kaup, Arch. Naturgesch., 1858, 94 (*Achirus lineatus* Linnæus).

Baïostoma Bean, Proc. U. S. Nat. Mus., V, 1882, 413 (*B. brachialis* Bean).

Subgenus ACHIRUS Lacépède.

1790. *Achirus achirus* (Linnæus).

Atlantic coasts of tropical America.

Pleuronectes oculus dextris corpore glabro, pinnis pectoralibus nullus Gronow, Museum, I, No. 42, Surinam.

Pleuronectes achirus Linnæus, Syst. Nat., ed. X, 1758, 268, Surinam; based on Gronow.

Solea gronovi Gunther, Cat., IV, 1862, 472, Surinam.

1791. *Achirus inscriptus* Gosse.

West Indies, north to Key West.

Achirus inscriptus Gosse, Nat. Sojourn Jamaica, 1851, 52, pl. 1, fig. 4, Jamaica.

Monochir reticulatus Poey, Memorias, II, 1861, 317, Cuba.

Subgenus GRAMMICHTHYS Kaup.

1792. *Achirus klunzingeri* (Steindachner).

Pacific coast of tropical America, Panama to Guayaquil.

Solea klunzingeri Steindachner, Zur Fische des Cauca und der Flüsse bei Guayaquil, 1879, 44, Guayaquil.

Subgenus TRINECTES Rafinesque.

1793. *Achirus fasciatus* Lacépède. *American sole*; *Hogchoker*.

Atlantic coast of United States, from Cape Cod to Texas; often ascending streams.

Achirus fasciatus Lacépède, Hist. Nat. Poiss., IV, 1803, 659, Charleston, S. C.

Pleuronectes mollis Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 388, pl. 2, fig. 4, New York.

Pleuronectes apoda Mitchill, Amer. Month. Mag. and Crit. Rev., Feb., 1818, 244, Straits of Bahama.

Trinectes scabra Rafinesque, Atlantic Jour. and Friend of Knowledge, I, 1832, Pennsylvania, in fresh water.

Solea browni Gunther, Cat., IV, 1862, 477, New Orleans; Texas.

1794. *Achirus scutum* (Günther).

Pacific coast of Central America.

Solea scutum Gunther, Cat., IV, 1862, 474, Gulf of Fonseca, Panama.

1795. *Achirus fonsecensis* (Gunther).
Pacific coast of tropical America, Mazatlan to Fonseca.
Solea fonsecensis Günther, Cat., IV, 1862, 475, Gulf of Fonseca.
Solea panamensis Steindachner, Ichth. Beiträge, V, 1876, 10, Taf. II, Panama.
Solea fischeri Steindachner, Beiträge Kenntniss Fluss-Fische Sudamer., I, 1879, 13, Rio Mamone near Panama.
1796. *Achirus mazatlanus* (Steindachner). *Mexican sole; Teipalcate*.
Pacific coast of tropical America.
Solea mazatlana Steindachner, Ichth. Notizen, IX, 1869, 23, Mazatlan, Mexico.
Solea pilosa Peters, Berliner Monatsber., 1869, 709, Mazatlan, Mexico.
1797. *Achirus comifer* Jordan and Gilbert
Key West, Fla.
Achirus comifer Jordan and Gilbert, Proc. U. S. Nat. Mus., VII, 1884, 31, Key West, Fla.
1798. *Achirus lineatus* (Linnæus).
Florida to Brazil.
Passer lineis transversis notatus Sloane, Jamaica, 2, 1725, 77, pl. 246, fig. 2, Jamaica.
Pleuronectes fuscus subrotundus glaber Browne, Jamaica, 1756, 445, Jamaica.
Pleuronectes lineatus Linnæus, Syst. Nat., ed. X, 1758, 268, Jamaica; based on Browne and Sloane; not of ed. XII, which is *Achirus fasciatus*.
Monochir maculipinnis Agassiz, Spix, Pisc. Brasil., 1829, 88, pl. 49, Brazil.
Barostoma brachialis Bean, Proc., U. S. Nat. Mus., V, 1882, 413, Appalachicola Bay and south Florida.
1799. *Achirus barnharti* Jordan.
Coast of southern California; Coronado Islands.
Achirus barnharti Jordan, Univ. Calif. Pub. Zool., XXVI, 1923, 10, Pl. I, Coronado Islands in about 400 feet depth of water.
- Genus 604. **APIONICHTHYS** Kaup.
Apionichthys Kaup, Wiegmann's Archiv, 1858, 104 (*A. dumerili* Kaup).
Soleotalpa Günther, Cat., IV, 1862, 489 (*S. unicolor* Gunther).
1800. *Apionichthys dumerili* Kaup.
West Indies.
Apionichthys dumerili Kaup, Wiegmann's Archiv, 1858, 104, no locality; description of species included in that of the genus.
Soleotalpa unicolor Gunther, Cat., IV, 1862, 489, West Indies.
Apionichthys nebulosus Peters, Berliner Monatsb., 1869, 709, Surinam.

Family 139. CYNOGLOSSIDÆ. Tonguefishes

- Genus 605. **SYMPHURUS** Rafinesque. *Tonguefishes*.
Symphurus Rafinesque, Indice, 1810, 13, 52 (*S. nigrescens* Rafinesque).
Bibronia Cocco, Alcuni Pesci del Mare di Messina, 1844, 15 (*B. ligulata* Cocco, larval form of *Symphurus*).
Plagusia Cuvier, Règne Animal, ed. 2, II, 1829, 344; based on *Plagusia* of Browne; name preoccupied in crustaceans, Latreille, 1806.
Plagusia Bonaparte, Cat. Metod., 1846, 51 (*P. lactea*); name a substitute for *Plagusia*.
Aphoristia Kaup, Archiv fur Natur., 1858, 106 (*Achirus ornatus* Lacépède).
Glossichthys Gill, Cat. Fish. E. Coast N. Amer., 1861, 51 (*Pleuronectes plagusia* Linnæus).
Ammopleurus Günther, Cat., IV, 1862, 490 (*Plagusia lactea* Bonaparte).
? *Bascanius* Schiödtte, Naturhist. Tijdskr., V, 1867, 269 (*B. tædifer* Schiödtte; larval).
1801. *Symphurus piger* (Goode and Bean).
West Indies and Gulf of Mexico in deep water.
Aphoristia pigra Goode and Bean, Bull. Mus. Comp. Zool., XII, No. 5, 1886, 154, St. Kitts, in about 250 fathoms.

1802. *Symphurus marginatus* (Goode and Bean).
West Indies.
Aphoristia marginata Goode and Bean, Bull. Mus. Comp. Zool., XII, No. 5, 1886, 153, off St. Vincent, West Indies.
1803. *Symphurus atramentatus* Jordan and Bollman.
Off coast of Colombia.
Symphurus atramentatus Jordan and Bollman, Proc. U. S. Nat. Mus., XII, 1889, 177, off coast of Colombia at Albatross station 2795, lat. 7° 57' N., long. 78° 55' W., in 33 fathoms.
1804. *Symphurus fasciolaris* Gilbert.
Gulf of California.
Symphurus fasciolaris Gilbert, Proc. U. S. Nat. Mus., XIII, 1891, 506, Gulf of California.
1805. *Symphurus elongatus* (Günther).
Pacific coast of tropical America.
Aphoristia ornata var. *elongata* Günther, Fishes Cent. Amer., 1869, 473, Panama.
1806. *Symphurus atricaudus* (Jordan and Gilbert). *San Diego sole*.
Lower California, north to San Diego.
Aphoristia atricauda Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 23, San Diego, Calif.
1807. *Symphurus leei* Jordan and Bollman.
Off the coast of Colombia.
Symphurus leei Jordan and Bollman, Proc. U. S. Nat. Mus., XII, 1889, 178, off coast of Colombia at Albatross station 2804, lat. 8° 16' 30'' N., long. 79° 37' 45'' W., in 47 fathoms.
1808. *Symphurus plagusia* (Bloch and Schneider). *Acedia*.
West Indies, south to Rio Janeiro.
Plagusia Browne, Jamaica, No. 1, 1756, 445, Jamaica.
Pleuronectes plagusia Bloch and Schneider, Syst. Ichth., 1801, 162, Jamaica; after Browne.
Achirus ornatus Lacépède, Hist. Nat. Poiss., IV, 1803, 659; on a specimen "presented by Holland to France."
Plagusia tessellata Quoy and Gaimard, Voyage Uranie, Zoology, 1824, 240, Rio Janeiro.
Plagusia brasiliensis Agassiz, in Spix, Pisc. Brasil., 1827, 89, tab. 50, Brazil.
1809. *Symphurus plagiusa* (Linnæus). *Tonguefish*.
South Atlantic and Gulf coasts of United States.
Pleuronectes plagiusa Linnæus, Syst. Nat., ed. XII, 1766, 455, on a specimen from Doctor Garden, probably from Charleston.
Plagusia fasciata Holbrook, in DeKay, New York Fauna: Fishes, 1842, 304, Charleston, S. C.
1810. *Symphurus pusillus* (Goode and Bean).
Off Atlantic coast of United States in deep water.
Aphoristia pusilla Goode and Bean, Proc. U. S. Nat. Mus., VIII, 1885, 590, Gulf Stream, lat. 40° N., in deep water.
1811. *Symphurus diomedeanus* (Goode and Bean).
Gulf of Mexico, off Key West, Fla.
Aphoristia diomedea Goode and Bean, Proc. U. S. Nat. Mus., VIII, 1885, 589, Gulf of Mexico, lat. 25° 4' 30'' N., long. 82° 59' 15'' W.
1812. *Symphurus williamsi* Jordan and Culver.
West coast of Mexico.
Symphurus williamsi Jordan and Culver, in Jordan, Proc. Calif. Acad. Sci., 2d ser., V, 1895, 506, pl. 55, Mazatlan, Mexico.
- Genus 606. *ACEDIA* Jordan.
Acedia Jordan, in Jordan and Goss, Rept. U. S. Fish Com., XIV, 1886 (1888) (*Aphoristia nebulosa* Goode and Bean).
1813. *Acedia nebulosa* (Goode and Bean).
Gulf Stream.
Aphoristia nebulosa Goode and Bean, Bull. Mus. Comp. Zool., X, No. 5, 1883, 192, Gulf Stream, off the coast of the Carolinas.

Superorder ACANTHOPTERYGII

Order LL. ZEOIDEI

Family 140. ZEIDÆ. John dories

Genus 607. ZENOPSIS Gill.

Zenopsis Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 126 (*Zeus nebulosus* Temminck and Schlegel).

1814. *Zenopsis ocellata* (Storer). *Ocellated dory*.

Off New England coast.

Zeus ocellatus Storer, Proc. Bost. Soc. Nat. Hist., VI, 1858, 386, off Provincetown, Mass.

Genus 608. ZENION Jordan and Evermann.

Zenion Jordan and Evermann, Rept. U. S. Fish Com., XXI, 1895 (1896), 418 (*Cyttus hololepis* Goode and Bean).

1815. *Zenion hololepis* (Goode and Bean).

West Indies, in deep water.

Cyttus hololepis Goode and Bean, Oceanic Ichth., 1896, 225, figs. 233, 233a, 233b, off Yucatan and Little Bahama Bank.

Genus 609. OREOSOMA Cuvier and Valenciennes.

Oreosoma Cuvier, Règne Animal, ed. 2, II, 1829 (type not named, *Oreosoma atlanticum* Cuvier).

Oreosoma Cuvier and Valenciennes, Hist. Nat. Poiss., IV, 1830, 377 (515) (*O. atlanticum* Cuvier and Valenciennes).

1816. *Oreosoma atlanticum* Cuvier and Valenciennes.

Open Atlantic; only a few specimens known.

Oreosoma atlanticum Cuvier and Valenciennes, Hist. Nat. Poiss., IV, 1829, 377 (515), open Atlantic.

Oreosoma conferrum Cuvier and Valenciennes, loc. cit., pl. 99, same type.

Family 141. GRAMMICOLEPIDÆ

Genus 610. GRAMMICOLEPIS Poey.

Grammicolepis Poey, Anal. Soc. Esp. Hist. Nat., II, 1873 (*G. brachiusculus* Poey).

1817. *Grammicolepis brachiusculus* Poey.

Cuba; in deep water.

Grammicolepis brachiusculus Poey, Anal. Soc. Española Hist. Nat., II, 1873, Cuba.

Order MM. XENOBERYCES

Family 142. STEPHANOBERYCIDÆ

Genus 611. STEPHANOBERYX Gill.

Stephanoberyx Gill, Proc. U. S. Nat. Mus., VI, 1883, 258 (*S. monæ* Gill).

1818. *Stephanoberyx monæ* Gill.

Gulf Stream, in deep water.

Stephanoberyx monæ Gill, Proc. U. S. Nat. Mus., VI, 1883, 258, Gulf Stream at Albatross station 2077 in 1,255 fathoms.

1819. *Stephanoberyx gillii* Goode and Bean.

Gulf Stream, in deep water.

Stephanoberyx gillii Goode and Bean, Oceanic Ichth., 1895, 187, fig. 206, Gulf Stream at Albatross station 2099 in 2,949 fathoms.

Family 143. MELAMPHAIDÆ

Genus 612. CAULOLEPIS Gill.

Caulolepis Gill, Forest and Stream, XXI, Aug. 30, 1883, and Proc. U. S. Nat. Mus., VI, 1883, 258 (*C. longidens* Gill).

1820. *Caulolepis longidens* Gill.
Gulf Stream and Pacific Ocean at Cortez Banks off San Diego, Calif.
Caulolepis longidens Gill, Proc. U. S. Nat. Mus., VI, 1883, 258, Atlantic Ocean, lat. 39° 27' N., long. 69° 56' 20" W., in 1,346 fathoms.
- Genus 613. *ANOPLOGASTER* Gunther.
Anoplogaster Gunther, Cat., I, 1859, 12 (*Hoplostethus cornutus* Cuvier and Valenciennes).
1821. *Anoplogaster cornutus* (Cuvier and Valenciennes).
Atlantic, in deep water, north and south.
Hoplostethus cornutus Cuvier and Valenciennes, Hist. Nat. Poiss., IX, 1833, 347 (270); from stomach of a shark, taken at 26° lat. S; others taken by the *Albatross* 31° N., 40° W., from the stomach of an albacore.
- Genus 614. *POROMITRA* Goode and Bean.
Poromitra Goode and Bean, Bull. Mus. Comp. Zool., X, No. 5, 1882, 214 (*P. capito* Goode and Bean).
1822. *Poromitra capito* Goode and Bean.
Deep water in Gulf Stream in latitude 34°
Poromitra capito Goode and Bean, Bull. Mus. Comp. Zool., X, No. 5, 1882, 215, Gulf Stream.
- Genus 615. *PLECTROMUS* Gill.
Plectromus Gill, Proc. U. S. Nat. Mus., VI, 1883, 257 (*P. suborbitalis* Gill).
1823. *Plectromus suborbitalis* Gill.
Gulf Stream, in deep water.
Plectromus suborbitalis Gill, Proc. U. S. Nat. Mus., VI, 1883, 258, lat. 38° 52' N., long. 69° 24' W., at *Albatross* stations 2036, 2190, and 2535 in 1,149 to 1,800 fathoms.
1824. *Plectromus beani* (Günther).
Gulf Stream in deep water.
Plectromus crassiceps Bean, Proc. U. S. Nat. Mus., VIII, 1885, 73, Gulf Stream; name preoccupied.
Melamphaes beani Günther, *Challenger* Rept., XXII, 1887, 29, Gulf Stream, in about latitude 40°.
1825. *Plectromus crassiceps* (Günther).
Mid-Atlantic; Brazil.
Scopelus crassiceps Günther, Ann. Mag. Nat. Hist., II, 1878, 185, deep water in mid-Atlantic and off Pernambuco.
1826. *Plectromus cristiceps* (Gilbert).
Coast of Washington and Oregon and southeastern Alaska.
Melamphaes cristiceps Gilbert, Proc. U. S. Nat. Mus., XIII, 1890 (1891), 60, coasts of Oregon and Washington and *Albatross* station 3075 in 859 fathoms.
1827. *Plectromus lugubris* (Gilbert).
Coast of California; off Bay of Panama; Bering Sea.
Melamphaes lugubris Gilbert, Proc. U. S. Nat. Mus., XIII, 1890 (1891), 59, coast of California south of Point Conception, at *Albatross* station 2923 in 822 fathoms.
1828. *Plectromus mizolepis* (Günther).
Off Bay of Panama in deep water; south of New Guinea and Bay of Bengal.
Scopelus mizolepis Günther, Ann. Mag. Nat. Hist., 11, 1878, 185, south of New Guinea.
1829. *Plectromus nycterinus* (Gilbert).
Coast of southern California, in deep water.
Melamphaes nycterinus Gilbert, Proc. U. S. Nat. Mus., XLVIII, 1915, 326, pl. 16, off Santa Catalina, 2,113 to 2,259 fathoms.
1830. *Plectromus bispinosus* (Gilbert).
Coronado Islands, near San Diego, Calif.
Melamphaes bispinosus Gilbert, Proc. U. S. Nat. Mus., XLVIII, 1915, 325, pl. 15, fig. 5; off the Coronado Islands, near San Diego, 642 to 666 fathoms.

Order NN: BERYCOIDEI

Family 144. POLYMIXIIDÆ. Barbudos

Genus 616. POLYMIXIA Lowe.

Polymixia Lowe, Trans., Cambr. Phil. Soc., VI, 1838, 198 (*P. nobilis* Lowe).

Nemabrama Valenciennes, Ichth. Îles Canaries, 1844, 40 (*N. webbi* Valenciennes = *Polymixia nobilis* Lowe).

Dinemus Poey, Memorias, II, 1861, 160 (*D. venustus* Poey = *Polymixia lowei* Günther).

1831. *Polymixia lowei* Günther. Barbudo.

Caribbean Sea; Cuba.

Polymixia lowei Günther, Cat., I, 1859, 17, Caribbean Sea.

Dinemus venustus Poey, Memorias, II, 1861, 161, Cuba.

Family 145. BERYCIDÆ

Genus 617. BERYX Cuvier. *Alfonsinos*.

Beryx Cuvier, Règne Anim., ed. 2, II, 1829, 151 (*B. decadactylus* Cuvier and Valenciennes).

1832. *Beryx decadactylus* Cuvier and Valenciennes. *Alfonsin a Casta Larga*.
Cosmopolitan, open seas, in rather deep water; Portugal, Madeira, Japan, and Cuba.

Beryx decadactylus Cuvier and Valenciennes, Hist. Nat. Poiss., III, 1829, 165 (222), Madeira or Portugal.

1833. *Beryx splendens* Lowe. *Alfonsin a Casta; Cumprida*.

Cosmopolitan, in the open seas, at moderate depth; Madeira, Japan, and Gulf Stream at 35° 49' 30'' N., 74° 34' 45'' W. in 424 fathoms.

Beryx splendens Lowe, Proc. Zool. Soc. Lond., 1833, 142, Madeira.

Family 146. ANOMALOPIDÆ

Genus 618. KRYPTOPHANARON Silvester and Fowler.

Kryptophanaron Silvester and Fowler, Proc. Acad. Nat. Sci. Phila., LXXVIII, 1926, 245 (*K. alfredi* Silvester and Fowler).

1834. *Kryptophanaron alfredi* Silvester and Fowler.

Off coast of Jamaica.

Kryptophanaron alfredi Silvester and Fowler, Proc. Acad. Nat. Sci. Phila., LXXVIII, 1926, 246, Pl. XVIII, fig. 1; Pl. XIX, figs. 2 and 4.

Off Kingston Harbor, Jamaica, floating on surface.

Family 147. TRACHICHTHYIDÆ

Genus 619. HOPISTETHUS Cuvier and Valenciennes.

Hoplostethus Cuvier and Valenciennes, Hist. Nat. Poiss., IV, 1829, 344 (469) (*H. mediterraneus* Cuvier and Valenciennes).

1835. *Hoplostethus mediterraneus* Cuvier and Valenciennes.

Coasts of southern Europe; Gulf Stream.

Hoplostethus mediterraneus Cuvier and Valenciennes, Hist. Nat. Poiss., IV, 1829, 344 (469), Mediterranean Sea.

Trachichthys pretiosus Lowe, Proc. Zool. Soc. Lond. 1839, 77, Madeira.

Family 148. HOLOCENTRIDÆ. Soldierfishes; Squirrelfishes

Genus 620. OSTICHTHYS Jordan and Evermann.

Ostichthys Langsdorf, in Cuvier and Valenciennes, Hist. Nat. Poiss., III, 130 (174), 1829; name only, passing reference under *Myripristis japonicus* Cuvier.

Ostichthys Jordan and Evermann, Fish. North and Mid. Amer., 1896, 846 (*Myripristis japonicus* Cuvier and Valenciennes).

1836. *Ostichthys trachypomus* (Günther).

West Indies; Cuba.

Myripristis trachypoma Günther, Cat., I, 1859, 25, Cuba.

Myriopristis fulgens Poey, Memorias, II, 1860, 160, Cuba.

Genus 621. MYRIPRISTIS Cuvier.

Myripristis Cuvier, Règne Anim., ed. 2, II, 1829, 150 (*M. jacobus* Cuvier and Valenciennes).

Rhamphoberyx Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 817 (*R. pæcilopus* Gill); young.

Myripristes of authors; altered spelling.

Myriopristis of authors; altered spelling.

1837. **Myripristis jacobus** Cuvier and Valenciennes. *Frère Jacques; Candil*. West Indies to Brazil; common.

Myripristis jacobus Cuvier and Valenciennes, Hist. Nat. Poiss., III, 1829, 121 (162), Martinique.

Rhinoberyx chryseus Cope, Proc. Amer. Phil. Soc., XIV, 1871, 464, St. Croix Island.

1838. **Myripristis occidentalis** (Gill).

West coast of America, from Cape San Lucas to Panama; Galapagos; Cocos Island.

Myriopristis occidentalis Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 87, Cape San Lucas.

Rhamphoberyx leucopus Gill, loc. cit., 88, Cape San Lucas; immature.

1839. **Myripristis pæcilopus** (Gill).

West coast of America, from Cape San Lucas to Panama.

Rhamphoberyx pæcilopus Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 87, Cape San Lucas; immature example.

Genus 622. HOLOTRACHYS Günther.

Holotrachys Günther, Jour. Mus. Godeffroy, Band I, 1873, 93 (*Myripristes lima* Cuvier and Valenciennes).

1840. **Holotrachys lima** (Cuvier and Valenciennes).

South Seas, east to Hawaii and Cocos Island.

Myripristis lima Cuvier and Valenciennes, Hist. Nat. Poiss., VII, 1831, 493, Île de France.

Myripristes humilis Kner and Steindachner, Sitz. Akad. Wiss. Wien, LIV, 1866, 357, pl. 1, fig. 1, Samoa.

Genus 623. HOLOCENTRUS Bloch. Squirrelfishes; Soldierfishes.

Holocentrus Gronow, Zoophyl., 1763, 65; nonbinomial.

Holocentrus Bloch, Naturgeschichte. Ausland. Fische, IV, 1790, 61 (*H. sogo* Bloch).

Holocentrum Cuvier, and of most authors; amended spelling.

Rhynchichthys Cuvier and Valenciennes, Hist. Nat. Poiss., VII, 1831, 503 (*R. pelamids* Cuvier and Valenciennes); young.

Rhinoberyx Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 237 (*Rhynchichthys brachyrhynchus* Bleeker); larval form.

1841. **Holocentrus ascensionis**³⁹ (Osbeck). *Matajuelo; Squirrelfish; Soldado; Welchman*.

Islands of the Atlantic and northward from St. Helena and Ascension Island to Florida and Cuba.

?*Perca ascensionis* Osbeck, Iter Chinensis, 1757; reprinted as Reise Ost-Ind. China, 1765, 388, Ascension Island; reprint of a pre-Linnaean paper, hence ineligible.

?*Bodianus pentacanthus* Bloch, Nat. Ausl. Fische, IV, 1790, 40, pl. 225, Brazil; after *Saguaraca* of Marcgrave.

?*Holocentrus sogo* Bloch, loc. cit., 61, pl. 232, Africa.

Sciæna rubra Schneider, Ed. Bloch, Syst. Ichth., 1801, 82; after Catesby.

Amphiprion matejuelo Bloch and Schneider, Syst. Ichth., 1801, 206, Cuba; after Parra.

?*Bodianus jaguar* Lacépède, Hist. Nat. Poiss., IV, 1802, 286, Brazil.

?*Holocentrum longipinne* Cuvier and Valenciennes, Hist. Nat. Poiss., III, 1829, 138 (185), Brazil; Martinique; Porto Rico; St. Thomas; San Domingo; Habana.

Holocentrus striatus Gronow, Cat. Fishes, 1854, 173, Antilles.

Holocentrus rostratus Gronow, loc. cit., 173, near the Equator.

³⁹ The specific name of the common matajuelo of Cuba is still wholly uncertain if the two forms (the one from Cuba, the other from Brazil) are really distinct. The earliest specific name, *ascensionis*, is apparently ineligible, occurring in reprints of a pre-Linnaean paper. The pertinence of most of the other names is more or less uncertain. Here, as elsewhere where no official decision has been made by the International Commission on Zoological Nomenclature, we follow the rule of not changing current nomenclature unless, as in matters of priority, the case is reasonably clear.

1842. *Holocentrus rufus* (Walbaum).
The northern form probably varying into *H. ascensionis*, which ranges from the Bahamas to Brazil.
Perca rufa Walbaum, Artedi Pisc., 1792, 351, Bahamas; after *Perca marina rubra* of Catesby.
1843. *Holocentrus coruscus* (Poey).
Cuba; Bahama Islands; Bermudas; Tortugas.
Holocentrum coruscum Poey, Memorias, II, 1861, 158, Cuba.
Holocentrum sicciferum Cope, Trans. Amer. Phil. Soc., XIV, 1871, 465, Bahamas, New Providence
? *Holocentrum puncticulatus* Barbour, Bull. Mus. Comp. Zool., XLVI, 1905, 117, Bermudas.
? *Holocentrus tortugæ* Jordan and Thompson, Bull. U. S. Bur. Fish., XXIV, 1904 (1905), 236, fig. 1, Garden Key, Tortugas.
1844. *Holocentrus brachypterus* Poey.
Cuba.
Holocentrus brachypterus Poey, Repertorio, I, 1866, 184, Cuba.
1845. *Holocentrus vexillarius* (Poey).
Cuba; Porto Rico
Holocentrum vexillarium Poey, Memorias, II, 1861, 158, Cuba.
? *Holocentrum riparium* Poey, Enumeratio, 1875, 37, Cuba.
1846. *Holocentrus osculus* (Poey).
Cuba.
Holocentrum osculum Poey, Memorias, II, 1861, 156, Cuba.
Holocentrum perlatum Poey, loc. cit., 157, Cuba.
1847. *Holocentrus sancti-pauli* (Günther).
St. Paul Rocks, mid-Atlantic.
Holocentrum sancti-pauli Günther, Shore Fishes, *Challenger* Rept., Zoology, I, part 6, 1880, 4, St. Paul Rocks, mid-Atlantic.
1848. *Holocentrus meeki* Bean.
Bermudas.
Holocentrus meeki Bean, Proc. Biol. Soc. Wash., XIX, 1906, 31, St. Davids Island, Bermudas.
- Genus 624. FLAMMEO Jordan and Evermann.
Flammeo Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2871 (*Holocentrum marianum* Cuvier and Valenciennes).
1849. *Flammeo marianus* (Cuvier and Valenciennes). *Marian*.
West Indies; Cuba; Jamaica; Martinique.
Holocentrum marianum Cuvier and Valenciennes, Hist. Nat. Poiss., III, 1829, 164 (219), Martinique.
Holocentrum rostratum Poey, Memorias, II, 1861, 157, Cuba.
- Genus 625. ADIORYX Starks.
Adioryx Starks, Science, XXVIII, 1908, 614 (*Holocentrum suborbitale* Gill).
1850. *Adioryx suborbitalis* (Gill). *Mojarra cardinal*.
Mazatlan to Panama; Revillagigedo, Cocos, and Galapagos Islands.
Holocentrum suborbitale Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 86, Cape San Lucas, Lower California.
- Genus 626. PLECTRYPOPS Gill.
Plectrypops Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 237 (*Holocentrum retrospinis* Guichenot).
1851. *Plectrypops retrospinis* (Guichenot).
Cuba.
Holocentrum retrospinis Guichenot, in Ramon de la Sagra, Hist. Cuba, 1853, 35, pl. 1, fig. 3, Cuba.

Order 00. THORACOSTEI

Suborder HEMIBRANCHII

Family 149. GASTEROSTEIDÆ. Sticklebacks

Genus 627. GASTEROSTEUS Linnæus. *Sticklebacks*.

Gasterosteus Linnæus, Syst. Nat., ed. X, 1758, 295 (*G. aculeatus* Linnæus).

Gasteracanthus Pallas, Zoog. Rosso-Asiat., III, 1811 (*G. cataphractus* Pallas).

Leurus Swainson, Nat. Hist. Fish., Amphib., etc., II, 1839, 242 (*Gasterosteus aculeatus* Linnæus).

Merramella Jordan, Univ. Calif. Publ. Geol., V, 1907, 131 (*M. dorysia* Jordan); fossil form

1852. *Gasterosteus aculeatus* Linnæus *Common stickleback*.

Arctic and subarctic regions, in shallow bays and estuaries, very common; also ascending streams, where it loses partially or wholly its bony plates, in Europe, Asia, and America alike. The development of these plates and in some degree of dorsal spines and caudal keel depends on the salinity of the water. Reported *G. williamsoni microcephalus* from irrigation ditch near El Rosario, Lower California, 255 miles south of U. S. border, May 21, 1925, Clinton G. Abbott, collector.

(1. Forms completely mailed)

Gasterosteus aculeatus Linnæus, Syst. Nat., ed. X, 1758, 489, Europe.

Gasterosteus cataphractus Pallas, Mém. Acad. Petersb., III, 1811, 325, Kamchatka.

Gasterosteus trachura Cuvier and Valenciennes, Hist. Nat. Poiss., IV, 1829, 481, France.

Gasterosteus teraculeatus Lacépède, Hist. Nat. Poiss., III, 1802, 296.

Gasterosteus obolarius Cuvier and Valenciennes, Hist. Nat. Poiss., IV, 1829, 500, Kamchatka.

Gasterosteus noveboracensis Cuvier and Valenciennes, loc. cit., 502, pl. 98, fig. 3.

Gasterosteus biaculeatus Shaw, Zool., IV, 1839, 608; after Pennant.

Gasterosteus dimidiatus Reinhardt, Fauna Grœnlandica, 1837, 32, 37, Greenland.

Gasterosteus loricatus Reinhardt, loc. cit., 32, 37, Greenland.

Gasterosteus baillon Blanchard, Poiss. des eaux douces de France, 1866, 231, Abbeville.

Gasterosteus insculptus Richardson, Last Arctic Voyage, 1854, 10, Pl. XXV, figs. 1, 2, and 3, Northumberland and Puget Sounds.

Gasterosteus serratus Ayres, Proc. Calif. Acad. Nat. Sci., I, 1855, 47, San Francisco.

(2. Forms armed anteriorly only)

Gasterosteus gymnurus Cuvier, Règne Animal, ed. II, 1829, 170, waters of England and northward.

Gasterosteus leiurus Cuvier and Valenciennes, Hist. Nat. Poiss., IV, 1829, 481, Seine.

Gasterosteus semiarmatus Cuvier and Valenciennes, loc. cit., 493, Havre, France.

Gasterosteus semuloricatus Cuvier and Valenciennes, loc. cit., 494, Baillon.

Gasterosteus spinulosus Jenyns and Yarrell, Man. Brit. Vert., 1835, 350, Edinburgh.

Gasterosteus ponticus Nordmann, in Demidoff, Voy. Russ. Merid., III, 1840, 357, Tauria and Black Sea.

Gasterosteus cuvieri Girard, in Storer's Fishes of Nova Scotia and Labrador, 1849, 254, p. VII, fig. 1, Bras d'Or, Red Bay, Labrador.

Gasterosteus microcephalus Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 133, Four Creek (Kaweah River), a tributary to Tule Lake (Tulare Lake), San Joaquin Valley, Calif.

Gasterosteus plebeius Girard, loc. cit., 147, Presidio, Calif.

- Gasterosteus inopinatus* Girard, loc. cit., 147, Presidio, Calif.
Gasterosteus pugetti Girard, loc. cit., 1856, 135, Fort Steilacoom, Wash.
Gasterosteus neustranus Blanchard, Poiss. des eaux douces de France, 1866, 220, Harfleur.
Gasterosteus argentissimus Blanchard, loc. cit., 232, Avignon.
Gasterosteus elegans Blanchard, loc. cit., 234, Cadillac and Langou, 6 pls.
Gasterosteus islandicus Sauvage, Revision des Épinoches, 1874, 20, Iceland.
Gasterosteus atkinsi Bean, Proc. U. S. Nat. Mus., II, 1879, 67, Schoodic Lakes, Maine.

(3. Forms naked or with one or two plates)

- Gasterosteus willamsoni* Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 133, Williamsons Pass, Calif.
Gasterosteus santa-annæ Regan, Ann. Mag. Nat. Hist., 8th ser., IV, 1909, 437, Santa Anna River, Calif.

Genus 628. *GLADIUNCULUS* Jordan and Evermann.

- Gladiunculus* Jordan and Evermann, Proc. Calif. Acad. Sci., ser. 4, XVI, 1927 (Apr. 27), 504 (*Gasterosteus gladiunculus* Kendall=*G. bispinosus* Walbaum).

1853. *Gladiunculus bispinosus* (Walbaum). *Common eastern stickleback*.
 Labrador to New Jersey, near the coast, in salt water; very common in New England.
Gasterosteus bispinosus Walbaum, Arted. Pisc., 1792, 450; after Pennant; said to be "New York," but more likely Hudson's Bay.
Gasterosteus wheatlandi Putnam, Proc., Essex Inst., V, 1867, 4, Nahant, Mass.
Gasterosteus gladiunculus Kendall, Proc. U. S. Nat. Mus., XVIII, 1896, off coast of Maine, near Seguin Island.

Genus 629. *EUCALIA* Jordan.

- Eucalia* Jordan, Man. Vert., ed. 1, 1876, 248 (*Gasterosteus inconstans* Kirtland).

1854. *Eucalia inconstans* (Kirtland). *Brook stickleback*.
 New York to Kansas and northward to the Saskatchewan; Great Lakes region; central Ohio, Indiana, and Illinois.
Gasterosteus inconstans Kirtland, Bost. Jour. Nat. Hist., III, 1841, 273, brooks of Trumbull County, Ohio.
Gasterosteus micropus Cope, Proc. Acad. Nat. Sci. Phila., XVII, 1865, 81, Fort Riley, Kans.
Gasterosteus globiceps Sauvage, Revision des Épinoches, 1874, 35, North America.
Eucalia inconstans cayuga Jordan, Man. Vert., ed. 1, 1876, 249, Cayuga Lake, Ithaca, N. Y.
1855. *Eucalia pygmaea* (Agassiz).
 Lake Superior.
 A valid species if the fin rays are D. IV-I, 6; A. I, 6. In *E. inconstans* they are D. IV-I, 10; A. I, 10.
Gasterosteus pygmaeus Agassiz, Lake Superior, 1850, 314, Lake Superior.

Subfamily GASTEROSTEINÆ

Genus 630. *PUNGITIUS* Costa. *Nine-spined sticklebacks*.

- Pungitius* Costa, Mém. Savants Etrangers, Paris, X, 1846 (*Gasterosteus pungitius* L.).
Pygosteus (Brevoort) Gill, Can. Nat., and Cat. Fish. E. Coast N. A., supplement to Proc. Acad. Nat. Sci. Phila., XIII, 1861, 39 (*Gasterosteus occidentalis* Cuvier and Valenciennes=*G. pungitius* Linnæus).
Gasterosteus Sauvage, Révision des Épinoches, 1874, 7 (*Gasterosteus pungitius* Linnæus).

- 1856. *Pungitius pungitius* (Linnæus).** *Nine-spined stickleback.*
Gasterosteus pungitius Linnæus, Syst. Nat., ed. X, 1758, 296, Europe;
 after *Gasterosteus aculeis* in dorso decem Arledi.
Gasterosteus lævis Cuvier, Règne Animal, ed. 2, II, 1829, 170, streams of
 France.
Gasterosteus occidentalis Cuvier and Valenciennes, Hist. Nat. Poiss.,
 IV, 1829, 509, Newfoundland; not *G. occidentalis* Linnæus, unrec-
 ognized, probably a species of *Carangidæ*.
Gasterosteus concinnus Richardson, Fauna Bor.-Amer., III, 1836, 57,
 Saskatchewan River and Great Bear Lake.
Gasterosteus nebulosus Agassiz, Lake Superior, 1850, 310, pl. 4, fig. 4,
 Lake Superior.
Gasterosteus dekayi Agassiz, Lake Superior, 1850, 311, New York.
Gasterosteus lotharingus Blanchard, Poiss. France, 1866, 244, Lorraine.
Gasterosteus breviceps Blanchard, loc. cit., 1866, 245, Caen, France.
Gasterosteus blanchardi Sauvage, Révision des Epinoches, 1874, 32, New
 York.
- 1857. *Pungitius mainensis* (Storer).**
 Kennebec River, Me.; a form or species with seven dorsal spines.
Gasterosteus mainensis Storer, Bost. Jour. Nat. Hist., I, 1837, 464,
 Kennebec County, Me.
- 1858. *Pungitius brachypoda* (Bean).**
 Baffins Bay, Greenland. A form with 10 dorsal spines and the ventral
 spines very small.
Gasterosteus pungitius brachypoda Bean, Bull. U. S. Nat. Mus., XV,
 1879, 129, Oosoodlin Mountain, Cumberland Gulf, Greenland.

Subfamily APELTINÆ

- Genus 631. APELTES DeKay.** *Four-spined stickleback.*
Apeltes DeKay, N. Y. Fauna: Fishes, 1842, 87 (*Gasterosteus quadracus*
 Mitchell).
- 1859. *Apeltes quadracus* (Mitchill).**
 Maine to New Jersey, in salt water only.
Gasterosteus quadracus Mitchell, Trans. Lit. and Phil. Soc., I, 1815,
 430, New York.
Gasterosteus apelles Cuvier and Valenciennes, Hist. Nat. Poiss., IV,
 1829, 505, no locality.
Gasterosteus millipunctatus Ayres, Bost. Jour. Nat. Hist., I, 1842, 294,
 Old Mans Harbor, Long Island.

Subfamily SPINACHIIINÆ

- Genus 632. SPINACHIA Cuvier.**
Spinachia Cuvier, Règne Anim., ed I, 1817, 320 (*Gasterosteus spinachia*
 Linnæus).
Polycanthus Swainson, Nat. Hist. Fish., Amphib., etc., II, 1839, 242
 (*Gasterosteus spinachia* Linnæus).
Gastræa Sauvage, Révision des Epinoches, 1874, 7 (*Gasterosteus*
spinachia Linnæus).
- 1860. *Spinachia spinachia* (Linnæus).**
 Coasts of northern Europe; recorded from Newfoundland.
Gasterosteus spinachia Linnæus, Syst. Nat., ed. X, 1758, 442.
Spinachia vulgaris Fleming, Brit. Anim., 1828, 210.
Gasterosteus marinus Gronow, Cat. Fish., 1854, 168.

Family 150. AULORHYNCHIDÆ

- Genus 633. AULORHYNCHUS Gill.**
Aulorhynchus Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 169 (*A.*
flavidus Gill).
Auliscops Peters, Berliner Monatsberichte, 1866, 570 (*A. spinescens*
 Peters).

1861. *Aulorhynchus flavidus* Gill.
Coast of California, from San Nicolas Island and Monterey northward to Sitka, Alaska.
Aulorhynchus flavidus Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 169, coast of Washington.

Suborder LOPHOBRANCHII

Family 151. SYNGNATHIDÆ. Pipefishes and seahorses

Subfamily SYNGNATHINÆ

- Genus 634. *DERMATOSTETHUS* Gill.
Dermatostethus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 283 (*D. punctipinnis* Gill).
1862. *Dermatostethus punctipinnis* Gill.
San Diego, California.
Dermatostethus punctipinnis Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 283, San Diego, Calif.; not lately recognized; the genus perhaps of doubtful value.
- Genus 635. *SYNGNATHUS* Linnæus.
Syngnathus Linnæus, Syst. Nat., ed. X, 1858, 336 (*Syngnathus acus* L., the proper type as decided by the Internat. Com. Zool. Nomencl.).
Siphostoma Rafinesque, Caratteri, 1810, 18 (*Syngnathus pelagicus* Linnæus).
1863. *Syngnathus californiensis* Storer. *Great pipefish*.
Santa Barbara to Monterey and northward.
Syngnathus californiensis Storer, Proc. Bost. Soc. Nat. Hist., II, 1845, 73, California.
1864. *Syngnathus griseolineatus* Ayres.
Pacific coast of the United States, from Monterey northward to Puget Sound and southeastern Alaska.
Syngnathus griseolineatus Ayres, Proc. Calif. Acad. Nat. Sci., I, 1854, 14, San Francisco Bay.
Syngnathus abboti Girard, Pac. R. R. Survey, Fishes, X, 1858, 346, San Francisco.
1865. *Syngnathus leptorhynchus* Girard.
West coast of America from San Francisco to San Diego.
Syngnathus brevirostris Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 156, San Diego; name preoccupied.
Syngnathus leptorhynchus Girard, loc. cit., 156, San Diego, Calif.
Syngnathus dimidiatus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 284, San Diego; substitute for *brevirostris*, preoccupied.
1866. *Syngnathus arundinaceus* Girard.
Coast of California.
Syngnathus arundinaceus Girard, Pac. R. R. Surv., X, 1858, 346, coast of California.
1867. *Syngnathus carinatus* (Gilbert).
Gulf of California.
Siphostoma carinatum Gilbert, Proc. U. S. Nat. Mus., XIV, 1891, 547, Gulf of California, lat. 31° 31' N., long. 114° 19' W., at Albatross stations 3027 and 3028.
1868. *Syngnathus auliscus* (Swain).
Southern California.
Siphostoma auliscus Swain, Proc. U. S. Nat. Mus., V, 1882, 310, Santa Barbara and San Diego, Calif.
1869. *Syngnathus barbaræ* (Swain).
California coast at Santa Barbara. Rare; not reported recently.
Siphostoma barbaræ Swain, Proc. U. S. Nat. Mus., VII, 1884, 238, Santa Barbara, Calif.

1870. *Syngnathus mackayi* (Swain and Meek).
Key West to Yucatan.
Siphostoma mackayi Swain and Meek, Proc. U. S. Nat. Mus., VII,
1884, 239, Key West, Fla.
1871. *Syngnathus floridæ* (Jordan and Gilbert).
Virginia to Texas and Porto Rico.
Siphostoma floridæ Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882,
263, Pensacola, Fla.
1872. *Syngnathus poeyi* (Jordan and Evermann).
Habana.
Syngnathus tenuis Poey, Synopsis, 1867, 444, Cuba; name preoccupied.
Siphostoma poeyi Jordan and Evermann, Fish. North and Mid. Amer.,
1896, 766, Habana, Cuba; substitute for *S. tenuis*, preoccupied.
1873. *Syngnathus elucens* ⁴⁰ Poey. *Pipefish*.
Cuba; Florida Keys; Porto Rico
Syngnathus elucens Poey, Synopsis, 1867, 443, Habana.
Syngnathus flavirostris Poey, Enumeratio, 1876, 178, Habana.
Syngnathus picturatus Poey, loc. cit., 178, Habana.
Syngnathus linea Poey, loc. cit., 178, Habana.
Syngnathus marmoreus Poey, loc. cit., 178, Habana.
Syngnathus ascendens Poey, loc. cit., 179, Habana.
1874. *Syngnathus rousseau* Kaup.
West Indies; known from Jamaica, St. Lucia, and Martinique.
Syngnathus rousseau Kaup, Lophobranchii, 1856, 40, Martinique.
1875. *Syngnathus jonesi* Gunther. *West Indian pipefish*.
Bermudas and Porto Rico.
Syngnathus jonesi Gunther, Ann. Mag. Nat. Hist., ser. 4, XIV, 1874,
8, 455, Bermudas.
1876. *Syngnathus fistulatus* Peters.
Puerto Cabello, near Colon.
Syngnathus fistulatus Peters, Monatsber., Ak. Wiss. Berl., 1868, 456,
Puerto Cabello, near Aspinwall.
1877. *Syngnathus pelagicus* Linnæus.
Open sea in the Atlantic and the Mediterranean; doubtfully recorded
from the West Indies; some other species, perhaps *S. fistulata*, being
mistaken for it.
Syngnathus pelagicus Linnæus, Syst. Nat., ed. I, 1758, open sea in
floating seaweed.
Syngnathus ethon Risso, Eur. Mérid., III, 1826, 182, Nice, France.
1878. *Syngnathus robertsi* (Jordan and Rutter).
West Indies and Jamaica; Caribbean Sea.
Siphostoma robertsi Jordan and Rutter, Proc. Acad. Nat. Sci. Phila.,
XLIX, 1897, 97, Jamaica.
1879. *Syngnathus brachycephalus* Poey.
Tortugas; Cuba.
Syngnathus brachycephalus Poey, Synopsis, 1867, 444, Habana, Cuba.
1880. *Syngnathus breviceaudus* (Meek).
Boca del Rio, Vera Cruz.
Siphostoma breviceaudum Meek, Field Col. Mus., Zool., V, 1904, 163,
Boca del Rio, Mexico.
1881. *Syngnathus crinigerum* (Bean and Dresel).
Pensacola and Key West, to Abrolhos Reef, Brazil.
Siphostoma crinigerum Bean and Dresel, Proc. Biol. Soc. Wash., II,
1884, 99, Pensacola, Fla.
1882. *Syngnathus sinaloæ* (Jordan and Starks).
Pacific coast of Mexico.
Siphostoma sinaloæ Jordan and Starks, Proc. Calif. Acad. Sci., 3d ser.,
VI, 1896, 268, Mazatlan, Mexico.

* Some of the nominal species here included may prove to be valid.

1883. *Syngnathus arctus* (Jenkins and Evermann).
Gulf of California, Guaymas.
Siphostoma arctum Jenkins and Evermann, Proc. U. S. Nat. Mus., XI,
1888, 137, Bay of Guaymas, Sonora, Mexico.
1884. *Syngnathus starksi* (Jordan and Culver).
Estuaries about Mazatlan.
Siphostoma starksi Jordan and Culver, Proc. Calif. Acad. Sci., 3d ser.,
V, 1895, 416, Pl. XXX, Rio Presidio, Mazatlan, Mexico.
1885. *Syngnathus dendriticus* (Barbour).
Ireland Island, Bermudas.
Siphostoma dendriticum Barbour, Bull. Mus. Comp. Zool., XLVI,
No. 7, 1904-1906, 115, Ireland Island, Bermudas.
1886. *Syngnathus mindii* Meek and Hildebrand.
Panama.
Syngnathus mindii Meek and Hildebrand, Field Mus. Nat. Hist., Zool.,
XV, 1923, 261, Pl. XVIII, fig. 2; brackish creek near Mindi, Canal
Zone, Panama.
1887. *Syngnathus elcapitensis* Meek and Hildebrand.
Streams, west coast of Panama.
Syngnathus elcapitanense Meek and Hildebrand in Meek, Field Mus.
Nat. Hist., Zool., X, 1914, 119, Rio Mamona at El Capitan, Panama.
1888. *Syngnathus tweedliei* Meek and Hildebrand.
Panama.
Syngnathus tweedliei Meek and Hildebrand, Field Mus. Nat. Hist.,
Zool., XV, 1923, 259, Pl. XVIII, fig. 1, Chame Point, Panama.
1889. *Syngnathus torrei* (Nichols).
Cuba.
Siphostoma torrei Nichols, Bull. Amer. Mus. Nat. Hist., XXXI, 1912,
183, fig. 1, Matanzas, Cuba.
- Genus 636. SYRICTES Jordan and Evermann.
Syrictes Jordan and Evermann Proc. Calif. Acad. Sci., XVI, Apr. 27,
1927, 504 (*Syngnathus fuscus* Storer).
1890. *Syrictes fuscus*⁴¹ (Storer). *Common pipefish; Green pipefish; Billfish*.
Atlantic coast of United States from Maine to Virginia; very common
northward.
Syngnathus fuscus Storer, Rept. Fish. Mass., 1839, 162, Nahant, Mass.
Syngnathus peckianus Storer, Rept. Fish. Mass., 1839, 163, Holms
Hole, Marthas Vineyard.
Syngnathus peckii Storer, Rept. Fish. Mass., 1839, 3; name only.
Syngnathus fasciatus DeKay, N. Y. Fauna: Fishes, 1842, 319, pl. 54,
fig. 174, New York.
Syngnathus viridescens DeKay, loc. cit., 321, pl. 54, fig. 176, New York.
Syngnathus dekeyi Duméril, Hist. Nat. Poiss., II, 1870, 569, New York.
Syngnathus milbertianus Duméril, loc. cit., 573, New York.
1891. *Syrictes affinis* (Günther).
Gulf of Mexico, on coast of Louisiana.
Syngnathus affinis Günther, Cat., VIII, 1870, 163, Louisiana.
1892. *Syrictes scovelli* (Evermann and Kendall).
Coast of Texas and both coasts of Florida.
Siphostoma scovelli Evermann and Kendall, Proc. U. S. Nat. Mus.,
XVIII, 1895, 113, Shamrock Point, Corpus Christi, Tex.
1893. *Syrictes louisianæ* (Günther).
Atlantic and Gulf coasts of the United States; North Carolina to Texas
and south to Key West.
Syngnathus pelagicus, var., Linnæus, Syst. Nat., ed. XII, 1766, 416,
Charleston, S. C.
Syngnathus louisianæ Günther, Cat., VIII, 1870, 160, New Orleans, La.
1894. *Syrictes bairdianus* (Duméril).
West coast of Lower California.
Syngnathus bairdianus Duméril, Hist. Nat. Poiss., II, 1870, 574, "Coast
of Mexico, near California."

⁴¹ The names *fuscus* and *peckianus* are of the same date. The author who first perceived this identity chose the second name in spite of the page priority of *fuscus*.

- 1895. *Syrristes exilis*** (Osborn and Nichols).
Gulf of California.
Siphostoma exile Osborn and Nichols, Bull. Amer. Mus. Nat. Hist., XXXV, 1916, 153, fig. 7, west San Benito Island, Port San Bartolome.
- Genus 637. HIPPICHTHYS** Bleeker.
Hippichthys Bleeker, Verh. Batav. Genootsch., XXII, 1849, 15 (*H. heptagonus* Bleeker); not *Hippocampus heptagonus* Rafinesque.
Corythoichthys Kaup, Archiv Naturgesch., 1853, 231 (*C. albirostris* Heckel MS. Kaup).
- 1896. *Hippichthys albirostris*** (Heckel).
West Indies, north to Pensacola and Key West; south to Bahia, about coral reefs.
Corythoichthys albirostris Heckel in Kaup, Archiv Naturgesch., 1853, 231, Mexico; Bahia; type examined.
Siphostoma zatropis Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 264, Snapper Banks, Pensacola.
- 1897. *Hippichthys cayorum*** (Evermann and Kendall).
Key West, Fla.; Porto Rico.
Corythoichthys cayorum Evermann and Kendall, Bull. U. S. Fish Com., XVII, 1897, 128, pl. 7, fig. 7, near Crawfish Bar, Key West, Fla.
- 1898. *Hippichthys spicifer*** (Rüppell).
Tropical Pacific; recorded from Tehuantepec.
Syngnathus spicifer Rüppell, Neue Wirb., Fische, about 1830, 143.
- Genus 638. DORYCHTHYS** Kaup.
Doryichthys Kaup, Archiv Naturgesch., 1853, 233 (*D. bilineatus* Heckel).
- 1899. *Doryichthys lineatus*** Valenciennes.
Tropical parts of Atlantic from Cuba to Brazil.
Doryichthys lineatus Valenciennes, in Kaup, Lophobranchii, 1856, 59, Bahia, Mexico, and Guadeloupe.
- Genus 639. DORYRHAMPUS** Kaup.
Doryrhampus Kaup, Archiv Naturgesch., 1853, 233 (*D. excisus* Kaup).
Choeroichthys Kaup, loc. cit., 1853, 233 (*C. valenciennesi* Kaup).
- 1900. *Doryrhampus californiensis*** Gill.
Gulf of California.
Doryrhampus californiensis Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 284, Cape San Lucas, Lower California.
- 1901. *Doryrhampus sierra*** Nichols.
Porto Rico.
Doryrhampus sierra Nichols, Bull. Amer. Mus. Nat. Hist., XXXIV, 1915, 145, fig. 2, Porto Rico.
- Genus 640. ACUS**⁴² Swainson.
Acus Swainson, Nat. Hist. Fish., Amphib., etc., II, 1839, 333 (*Syngnathus æquoreus* "Yarrell").
Osphyolax Cope, Proc. Acad. Nat. Sci. Phila., XXVII, 1875, 450 (*O. pellucidus* Cope).
- 1902. *Acus æquoreus*** (Linnæus). *Ocean pipefish*.
Open sea along coasts of Europe; recorded from New Orleans, some other species probably mistaken for it.
Syngnathus æquoreus Linnæus, Syst. Nat., ed. X, 1758, 417, open sea.
Syngnathus sibbaldi Walbaum, Artedi Pisc., 1792, 6, Scotland.
Nerophis maculata Rafinesque, Indice, 1810, 57, Palermo, Italy.
Nerophis anguineus Kaup, Lophobr., 1856, 65, Brownsey, Dorsetshire; Berwick.
- 1903. *Acus martinicensis*** (Bibron) Kaup.
West Indies.
Nerophis martinicensis (Bibron) Kaup, Lophobr., 1856, 67, Martinique.

⁴² We may adopt the generic name *Acus* for the species of the old genus *Nerophis* (Rafinesque, Indice, Sicil., 1810, 57, type *Syngnathus ophidion* L.) in which a small caudal fin is present, the tail not ending in a filament, as is the case in the type of *Nerophis* (*Syngnathus ophidion* L.). The name *Acus*, variously used by authors, is not preoccupied in binomial nomenclature.

1904. *Acus heckeli* (Kaup).
Caribbean Sea.
Nerophis heckeli Kaup, Lophobr., 1856, 66, Bogota; evidently not the exact locality.
1905. *Acus pellucidus* (Cope).
Open Atlantic.
Osphrolax pellucidus Cope, Proc. Acad. Nat. Sci. Phila., XXVII, 1875, 450, pl. 25, figs. 1 to 4, open Atlantic Ocean; a larval form of doubtful relationships and differing from *Acus* in the very short dorsal (D. 16; about 40 in *Acus*).
- Subfamily HIPPOCAMPINÆ
- Genus 641. **NANNOCAMPUS** Gunther.
Nannocampus Gunther, Cat., VIII, 1870, 178 (*N. subosseus* Gunther).
1906. *Nannocampus nanus* Rosen.
Bahama Islands.
Nannocampus nanus Rosen, Arsskr. Univ. Lund, VII, 1912, 50, Bahamas.
- Genus 642. **HIPPOCAMPUS** Rafinesque.
Hippocampus Rafinesque, Caratteri, 1810, 18 (*Syngnathus hippocampus* Linnaeus).
1907. *Hippocampus hudsonius* DeKay. *Common American seahorse; Horsefish.*
Atlantic coast of United States, from Cape Cod to the Tortugas.
Hippocampus hudsonius DeKay, N. Y. Fauna: Fishes, 1842, 322, p. 53, fig. 171, New York.
Hippocampus lævicaudatus Heckel, in Kaup, Lophobranchii, 1856, 16, North America.
1908. *Hippocampus ingens* Girard. *Caballito del mar.*
Pacific coast from San Diego to Mazatlan; rare.
Hippocampus ingens Girard, Pac. R. R. Surv., Fishes, X, 1858, 342, San Diego, Calif.
Hippocampus gracilis Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 282, Cape San Lucas, Lower California.
1909. *Hippocampus brunneus* Bean.
Bermudas.
Hippocampus brunneus Bean, Proc. Biol. Soc. Wash., XIX, 1906, 32, Long Bird Island, Bermudas.
1910. *Hippocampus punctulatus* Guichenot. *Caballito del mar; Seahorse; Horsefish.*
Tropical parts of the Atlantic; common in the West Indies, Brazil, and western Africa; Gulf Stream; Beaufort, N. C.
Hippocampus punctulatus Guichenot in Ramon de la Sagra, Hist. Île. Cuba, Poiss., 1853, 174, pl. 5, fig. 2, Cuba.
Hippocampus marginalis Heckel, in Kaup, Lophobr., 1856, 15, Mexico.
Hippocampus fasciularis Heckel, in Kaup, loc. cit., 15, Mexico.
1911. *Hippocampus stylifer* Jordan and Gilbert.
Coasts of Florida; Snapper Banks off Pensacola and Tampa; Gulf Stream.
Hippocampus stylifer Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 265, Snapper Banks, Gulf of Mexico.
1912. *Hippocampus zosterae* Jordan and Gilbert.
Pensacola Bay, Fla.
Hippocampus zosterae Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 265, Grand Lagoon, Pensacola, Fla.; smallest of the seahorses,

Order PP. AULOSTOMI

Family 152. AULOSTOMIDÆ. Trumpetfishes

- Genus 643. **AULOSTOMUS** Lacépède.
Aulostomus Lacépède, Hist. Nat. Poiss., V, 1803, 357 (*A. chinensis* Lacépède).
Polyptericthys Bleeker, Nat. Tijdschr., Neder-Indie, IV, 1853, 608 (*P. valentini* Bleeker).
Aulostoma Schlegel, change of spelling.

1913. *Aulostomus maculatus* Valenciennes. *Trompetero*; *Trumpetfish*.
Caribbean Sea, north to southern Florida.
? *Aulostomus maculatum* Valenciennes, in Cuvier, Règne Anim., III,
Poiss., 1845, pl. 92, fig. 2.
Aulostoma coloratum Muller and Troschel, in Schomburgk, History
Barbados, 1848, 673, Barbados.
1914. *Aulostomus cinereus* (Poey).
Cuba.
Aulostoma cinereum Poey, Synopsis, 1867, 386, Cuba.

Family 153. FISTULARIIDÆ. Cornetfishes

- Genus 644. FISTULARIA Linnæus.
Fistularia Linnæus, Syst. Nat., ed. X, 1758, 312 (*F. tabacaria* Linnæus).
Cannorhynchus Cantor, Jour. Roy. Asiat. Soc. Bengal, XVIII, 1849
(*Fistularia tabacaria* Linnæus); substitute name, *Fistularia* having
been used in 1750 as a pre-Linnæan name for a group of polyps.
Flagellaria Gronow, Cat. Fishes, 1854 (*F. fistularis* Gronow = *Fistularia*
tabacaria Linnæus).
Solenostomus (Gronow) Gill, Cat. Fish. East Coast. N. A., Supl. to
Proc. Acad. Nat. Sci. Phila., XIII, 1861, 38 (*Fistularia tabacaria*
Linnæus).
1915. *Fistularia tabacaria* Linnæus *Trumpetfish*; *Trompetero*; *Tobacco*
trumpetfish; *Unarmed trumpetfish*.
West Indies and neighboring seas; northward to Carolina and Florida,
and occasionally to Long Island.
Fistularia tabacaria Linnæus, Syst. Nat., ed. X, 1758, 312, tropical
America.
Fistularia neo-boracensis Mitchell, Trans. Lit. Phil. Soc. Phila., I,
1815, 437, New York.
Aulastome marcgravi Castelnau, Anim. Nouv. Amer. Sud, 1855, 30,
Bahia, Rio Janeiro.
Flagellaria fistularis Gronow, Cat. Fish., 1854, 146, American Ocean.
1916. *Fistularia serrata* ⁴³ Cuvier. *Flutemouth*.
Western Pacific and other warm seas; Bermuda; Cuba.
Fistularia serrata Cuvier, Règne Anim., ed. 1, II, 1817, 389, 34; after Bloch.
? *Fistularia immaculata* Cuvier, loc. cit., 349, Sea of the Indies.
Fistularia commersonii Ruppell, Neue Wirbelthiere, 1834, 142, Red Sea.
Fistularia villosa Klunzinger, Abh. Zool. Ges. Wien, XXI, 1871, 516,
Red Sea.
1917. *Fistularia petimba* Lacépède. *Corneta*.
East Indies; Australia; China; Panama; Lower California; Japan;
Hawaii.
Fistularia petimba Lacépède, Hist. Nat. Poiss., V, 1803, 349, New
Britain, Isle of Reunion, equatorial Pacific.
Fistularia depressa Günther, *Challenger* rept. Shore Fishes, Zoology, I,
pt. 6, 1880, 69, pl. 32, fig. D, Sulu Archipelago, station 200, 255
fathoms.
1918. *Fistularia corneta* Gilbert and Starks.
Pacific coast of tropical America; Panama.
Fistularia corneta Gilbert and Starks, Mem. Calif. Acad. Sci., IV, 1904,
56, Pl. X, Bay of Panama; Mazatlan.

Family 154. MACRORHAMPHOSIDÆ. Snipefishes

- Genus 645. MACRORHAMPHOSUS Lacépède. *Snipefishes*.
Macrorhamphosus Lacépède, Hist. Nat. Poiss., V, 1803, 136 (*Silurus*
cornutus Forskål = *Balistes scolopax* Linnæus).
Centriscus Cuvier, Règne Animal, ed. 1, II, 1817, 350; not *Centriscus*
Linnæus.
Macrogathus Gronow, Cat. Fishes, 1854, 147 (*Centriscus scolopax*
Linnæus).

⁴³ Weber calls this species *villosa* but quotes *serrata*? in synonymy. The synonymy of *serrata* and *petimba* seem hopelessly confused.

1919. *Macrorhamphosus scolopax* (Linnæus). *Snipefish; Trumpetfish; Bellowsfish*.
Mediterranean Sea, northward to southern England, accidental on our North Atlantic Coast.
Balistes scolopax Linnæus, Syst. Nat., ed. X, 1758, 329, Mediterranean.
Silurus cornutus Forskål, Descr. Anim., 1775, 66, Marseilles.
1920. *Macrorhamphosus hawaiiensis* Gilbert.
Deep waters about Hawaii; once taken off San Pedro, Calif. (W. F. Thompson).
Macrorhamphosus hawaiiensis Gilbert, Bull. U. S. Fish Com., XXIII, 1903 (1905), 613, Laysan Island.

Order QQ. PERCOMORPHI

Suborder PERCESOCES

Family 155. ATHERINIDÆ. Silversides; Hardheads; Pescados del Rey; Peixe Rey

Genus 646. HEPSETIA Bonaparte.

Hepsetia Bonaparte, Fauna Italica, Fasc. 91 (no pages), 1837 (*Atherina boyeri* Risso).

Athernomorus Fowler, Proc. Acad. Nat. Sci. Phila., LV, 1903, 730 (*Atherina laticeps* Poey = *Atherina stipes* Muller and Troschel).

1921. *Hepsetia stipes* (Muller and Troschel). *Cabezote, Brisle herring*.
West Indies; common north to western Florida.
? *Atherina tæmata* Spix in Agassiz, Pisc. Bras., 1829, 135, pl. 30, fig. 2, Atlantic Ocean, off Brazil.
Atherina stipes Muller and Troschel, in Schomburgk, Hist. Barbados, 1847, 671, Barbados.
Atherina laticeps, Poey, Memorias, II, 1861, 265, Habana.
Atherina velutana Goode and Bean, Proc. U. S. Nat. Mus., II, 1879, 342, Clear Water Harbor, Fla.
1922. *Hepsetia evermanni* (Eigenmann).
Cuba; San Cristobal; Pinar del Rio.
Atherina evermanni Eigenmann, Bull. U. S. Fish Com., XXII, 1902, 228, fig. 9, San Cristobal, Cuba.

Genus 647. ATHERINA (Artedi) Linnæus. *Friars*.

Atherina Artedi in Linnæus, Syst. Nat., ed. X, 1758, 315 (*Atherina hepsetus* Linnæus).

Aphia Risso, Europ. Mérid. 1826 (*Aphia meridionalis* Risso = apparently very young of *Atherina hepsetus* L.), but Risso describes their laying of eggs, and may refer to some other species.

Tæniomembras Ogilby, Proc., Linn. Soc. New South Wales, XXIII, 1898, 41 (*Atherina microstoma* Günther).

1923. *Atherina aræa* Jordan and Gilbert.
Gulf of Mexico at Key West, Cozumel, and south to Caribbean Sea.
Atherina aræa Jordan and Gilbert, Proc. U. S. Nat. Mus., VII, 1884, 27, Key West, Fla.
1924. *Atherina harringtonensis* Goode.
Bermudas and south to Curaçao.
Atherina harringtonensis Goode, Amer. Jour. Sci. Arts, 3d ser., XIV, No. 82, 1877, 297, Bermuda Islands.
1925. *Atherina microps* Poey.
Habana.
Atherina microps Poey, Memorias, II, 1861, 266, Habana, Cuba.
1926. *Atherina carolina* Cuvier and Valenciennes.
South Carolina (reference doubtful).
Atherina carolina Cuvier and Valenciennes, Hist. Nat. Poiss., X, 1835, 330 (445), "Carolinas."

Genus 648. MENIDIA Bonaparte.

Menidia Bonaparte, Fauna Italica, Tome III, Pesci, in description of *Atherina hepsetus* p. 91, 1836, no type, *Atherina menidia* Linnaeus intended.

Ischnomembras Fowler, Proc. Acad. Nat. Sci. Phila., LV, 1903, 730, pl. 42, "Gabun River, Gabun County, West Africa," probably an error.

Phozargyrea Fowler, loc. cit., 1903, 732, *Phozargyrea dayi* Fowler from "India," doubtless an error.

Subgenus ISCHNOMEMBRAS Fowler.

- 1927. *Menidia beryllina* (Cope).** *Silverside; Fresh-water silverside.*
Coastwise streams, Massachusetts to Florida and lower Mississippi, north to Tennessee.
? *Atherinichthys gracilis* Günther, Cat., III, 1861, 405, no locality given.
Christoma beryllinum Cope, Trans. Amer. Phil. Soc., 1866, 403, Potomac River, near Washington.
Menidia audens Hay, Bull. U. S. Fish Com., II, 1882, 64, Memphis, Tenn., and Vicksburg, Miss.
Ischnomembras gabunensis Fowler, Proc. Acad. Nat. Sci. Phila., LV, 1903, 731, pl. 42, Gabon River, West Africa; probably an error.
- 1928. *Menidia beryllina cerea* Kendall.**
Atlantic coast, Massachusetts to South Carolina.
Menidia beryllina cerea Kendall, Rept. U. S. Fish Com., XXVII, 1901, 261, Waquoit Bay, Mass.
- 1929. *Menidia peninsulæ* (Goode and Bean).**
Florida and Gulf coast, in salt water.
Chirostoma peninsulæ Goode and Bean, Proc. U. S. Nat. Mus., II, 1879, 148, Pensacola.
- 1930. *Menidia peninsulæ atrimentis* Kendall.**
Florida; South Lake, Lake Monroe, Salt Lake, etc.
Menidia peninsulæ atrimentis Kendall, Rept. U. S. Fish Com., XXVII, 1901, 258, South Lake, Fla.
- 1931. *Menidia menidia* (Linnaeus).**
Atlantic coast, Cape Hatteras to Florida.
Atherina menidia Linnaeus, Syst. Nat., ed. XII, 1766, 519, Charleston, S. C.
Atherina boscii Cuvier and Valenciennes, Hist. Nat. Poiss., X, 1835, 345 (465), Charleston.
Menidia dentex Goode and Bean, Proc. U. S. Nat. Mus., V, 1882, 429, St. Johns River, Fla.
- 1932. *Menidia conchorum* Hildebrand and Ginsberg.**
Key West, Fla.
Menidia conchorum Hildebrand and Ginsberg, Bull. U. S. Bur. Fish., XLII, 1926 (1927), 207, fig. 1, Boca Chica, Key West, Fla.
- 1933. *Menidia notata* (Mitchill).** *Silversides; Friar; Whitebait.*
Atlantic coast of United States, Nova Scotia to Cape May, intergrading south with *M. menidia*.
Atherina notata Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 446, New York.
Atherina viridescens Mitchell, loc. cit., 447, New York.
Phozargyrea dayi Fowler, Proc. Acad. Nat. Sci. Phila., LV, 1903, 732, pl. 41, "India"; no doubt an error in locality.
- 1934. *Menidia starksi* Meek and Hildebrand.**
Panama.
Menidia starksi Meek and Hildebrand, Field Mus. Nat. Hist., Zool., XV, 267, Pl. XX, fig. 2, Taboga Island, Panama.
- 1935. *Menidia sardina* (Jenkins and Evermann).** *Pez del rey.*
Gulf of California.
Atherina sardina Jenkins and Evermann, Proc. U. S. Nat. Mus., XI, 1888, 137, Guaymas, Sonora, Mexico.

1936. *Menidia clara* Evermann and Jenkins.
Gulf of California.
Menidia clara Evermann and Jenkins, Proc. U. S. Nat. Mus., XIII, 1891, 136, Guaymas, Sonora, Mexico.
- Genus 649. ARCHOMENIDIA Jordan and Hubbs.
Archomenidia Jordan and Hubbs, Rev. Silversides, 1919, 54 (*Atherinichthys saltæ* Regan).
1937. *Archomenidia sallei* (Regan).
Mexico.
Atherinichthys sallei Regan, Proc. Zool. Soc. Lond., 1903, 60, Mexico.
- Genus 650. HUBBESIA Jordan.
Hubbesia Jordan, Proc. U. S. Nat. Mus., LV, 1920 (May 2, 1919), 310 (*Menidia gilberti* Jordan and Bollman).
1938. *Hubbesia gilberti* (Jordan and Bollman).
Panama.
Menidia gilberti Jordan and Bollman, Proc. U. S. Nat. Mus., XII, 1889, 155, Panama.
- Genus 651. MEMBRAS Bonaparte.
Membras Bonaparte, Fauna Italica, fasc. 91 (not paged), 1837 (type not named directly, *Atherina martinica* Cuvier and Valenciennes being indicated).
1939. *Membras martinicus* (Cuvier and Valenciennes).
Martinique.
Atherina martinica Cuvier and Valenciennes, Hist. Nat. Poiss., X, 1835, 340 (459), Martinique.
1940. *Membras beani* (Meek and Hildebrand).
Atlantic waters of Panama.
Kirtlandia beani Meek and Hildebrand, Field Mus. Nat. Hist., Zool., XV, 270, Pl. XXI, Fox Bay, Colon.
- Genus 652. KIRTLANDIA Jordan and Evermann.
Kirtlandia Jordan and Evermann, Fishes North and Mid. Amer., 1896, 794 (*Chirostoma vagrans* Goode and Bean).
1941. *Kirtlandia vagrans* (Goode and Bean). *Rough silverside*.
Gulf of Mexico; Florida to Texas; occasionally northward.
Chirostoma vagrans Goode and Bean, Proc. U. S. Nat. Mus., II, 1879, 148, Pensacola, Fla.
1942. *Kirtlandia lacinata* (Swain). *Silverfish; Whitebait; Silversides*.
Lower Chesapeake to South Carolina, intergrading with *K. vagrans*.
Menidia vagrans lacinata Swain, in Jordan and Gilbert, Synopsis, 1882, 908, Beaufort, N. C.
- Genus 653. THYRINA Jordan and Culver.
Thyrina Jordan and Culver, in Jordan, Proc. Calif. Acad. Sci., 3d ser., V, 1895, 419 (*Atherinella evermanni* Jordan and Culver).
Melaniris Meek, Field Mus.-Zool., III, 1902, 117 (*Melaniris balsanus* Meek).
1943. *Thyrina crystallina* Jordan and Culver.
Rio Presidio near Mazatlan, Sinaloa.
Thyrina crystallina Jordan and Culver, in Jordan, Proc. Calif. Acad. Sci., 3d ser., V, 1895, 420, Rio Presidio, below Presidio, Sinaloa.
1944. *Thyrina evermanni* Jordan and Culver.
West coast of Mexico; Mazatlan.
Thyrina evermanni Jordan and Culver, Proc. Calif. Acad. Sci., 3d ser., V, 1895, 419, Mazatlan, Mexico.
1945. *Thyrina guija* Hildebrand. *Pepesca; Manjuda; Alfiler; Rovalote*.
Lake Guija, Rio del Desague near Lake Guija and Rio Lempa at Suchitoto and San Marcos, El Salvador.
Thyrina guija Hildebrand, Bull. U. S. Bur. Fish., XLI, 1925, 264, fig. 18, Lake Guija, El Salvador.

1946. *Thyrina balsana* (Meek).
Mexico, Rio Balsas, Guerrero.
Melaniris balsanus Meek, Pub. Field Col. Mus., Zool., III, 1902, 117,
Rio Balsas, at Balsas.
1947. *Thyrina guatemalensis* (Gunther).
Lakes of Huamachal.
Atherinichthys guatemalensis Gunther, Proc. Zool. Soc. London, 1864,
151, Lakes of Huamachal, Pacific coast of Guatemala.
1948. *Thyrina sardina* (Meek). *Sardina*.
Lakes Nicaragua and Managua.
Melaniris sardina Meek, Field Col. Mus., Zool., VII, 1907, 114, Lake
Managua, Nicaragua.
Chirostoma guatemalensis Gill, Proc. Acad. Nat. Sci. Phila., XXIX,
1877, 187, Lake Nicaragua; not of Gunther.
1949. *Thyrina chagresi* (Meek and Hildebrand).
Streams of Atlantic slope of Panama.
Menidia chagresi Meek and Hildebrand, Field Mus. Nat. Hist., Zool.,
X, 1914, 119, Rio Chagres at Gorgona, Zent and Parismina, Costa
Rica.
1950. *Thyrina meeki* Miller.
Rio Motagua, Guatemala.
Thyrina meeki Miller, Bull. Amer. Mus. Nat. Hist., XXIII, 1907,
110, fig. 2, Rio Motagua, east coast of Guatemala.
- Genus 654. **THYRINOPS** Hubbs.
Thyrinops Hubbs, Proc. Acad. Nat. Sci. Phila., LXIX, 1918, 306
(*Atherinichthys pachylepis* Günther).
1951. *Thyrinops pachylepis* (Gunther).
Panama.
Atherinichthys pachylepis Günther, Proc. Zool. Soc. Lond., 1864, 25,
Panama.
- Genus 655. **MELANORHINUS** Metzelaar.
Melanorhinus Metzelaar, Tropisch Atl. Visschen, 1919, 38 (*M. boeki*
Metzelaar).
1952. *Melanorhinus boeki* Metzelaar.
West Indies.
Melanorhinus boeki Metzelaar, Trop. Atl. Visschen, 1919, 38, Oyster
Pond, St. Martin Island.
- Genus 656. **XENATHERINA** Regan.
Xenatherina Regan, Biologia Centrali Amer., Pisces, 1906, 64 (*Menidia*
lisa Meek).
1953. *Xenatherina lisa* (Meek).
Streams of Vera Cruz, Mexico.
Menidia lisa Meek, Field Col. Mus., Pub. Zool., V, 1904, 182, Refugio,
Vera Cruz, Basin of Rio Papaloapam, Mexico.
- Genus 657. **ATHERINELLA** Steindachner.
Atherinella Steindachner, Ichth. Beitr., II, 1875, 35 (*A. panamensis*
Steindachner).
1954. *Atherinella panamensis* Steindachner.
Panama.
Atherinella panamensis Steindachner, Ichth. Beitr., II, 1875, 35,
Panama.
- Genus 658. **EURYSTOLE** Jordan and Evermann.
Eurystole Jordan and Evermann, Fishes North and Mid. Amer., 1896,
802 (*Atherinella eriarcha* Jordan and Gilbert).
1955. *Eurystole eriarcha* (Jordan and Gilbert).
West coast of Mexico; Mazatlan.
Atherinella eriarcha Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881,
348, Mazatlan, Mexico.

Genus 659. CHIROSTOMA Swainson. *Pescados blancos.*

Chirostoma Swainson, Class. Fishes, etc., II, 1839, 243 (*Atherina humboldtiana* Cuvier and Valenciennes).

Atherinoides Bleeker, Verh. Bat. Gen., Japan, XXV, 1853, 40 (*Chirostoma vomerina* Cuvier and Valenciennes=*Atherina humboldtiana* Cuvier and Valenciennes).

Atherinichthys Bleeker, loc. cit., 40 (*Atherina humboldtiana* Cuvier and Valenciennes).

Heterognathus Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 198 (*Atherina humboldtiana* Cuvier and Valenciennes).

Lethostole Jordan and Evermann, Fish. North and Mid. Amer., 1896, 792 (*Chirostoma estor* Jordan).

Eslopsarum Jordan, Rept. U. S. Fish Com., XIX, 1895, 330 (*Chirostoma jordani* Woolman).

Subgenus ESLOPSARUM Jordan.**1956. *Chirostoma jordani* Woolman.**

Basin of Rio Lerma and Valley of Mexico.

Chirostoma jordani Woolman, Bull. U. S. Fish Com., XIV, 1894, 62, pl. 2, canals at Salamanca and City of Mexico.

Atherinichthys brevis Therese von Baiern, Anz. Kais. Akad. Wiss. Wien, 1894, 149, Lake Cuitzeo, Mexico.

1957. *Chirostoma mezquital* Meek.

Durango.

Chirostoma mezquital Meek, Field Col. Mus., pub. 93, V, 1904, 170, Durango, Mexico.

1958. *Chirostoma labarcæ* Meek.

Rio Lerma, Mexico.

Chirostoma labarcæ Meek, Field Col. Mus., Zool., III, 1902, 113, Rio Lerma, Mexico.

1959. *Chirostoma arge* (Jordan and Snyder).

Rio Verde, Mexico.

Eslopsarum arge Jordan and Snyder, Bull. U. S. Fish Com., XIV, 1899, 133, fig. 12, Rio Verde, Mexico.

Subgenus CHIROSTOMA Swainson.**1960. *Chirostoma bartoni* Jordan and Evermann.**

Tributary of the Rio Lerma, near Guanajuato, Mexico; Lake Patzcuaro.

Chirostoma bartoni Jordan and Evermann, Fish. North and Mid. Amer., 1896, 793, tributary of the Rio Lerma, near Guanajuato, Mexico.

Chirostoma attenuatum Meek, Field Col. Mus., Zool., III, 1902, 112, Lake Patzcuaro, Mexico.

1961. *Chirostoma zirahuen* Meek.

Lago de Zirahuen, Mexico.

Chirostoma zirahuen Meek, Field Col. Mus., Zool., III, 1902, 114, Lago de Zirahuen, Mexico.

1962. *Chirostoma patzcuaro* Meek.

Lago de Patzcuaro, Mexico.

Chirostoma patzcuaro Meek, Field Col. Mus., Zool., III, 1902, 113, Lago de Patzcuaro, Mexico.

1963. *Chirostoma humboldtianum* (Cuvier and Valenciennes). *Pescado blanco de Chalco.*

Lakes near the City of Mexico; La Laguna, Jalisco, Mexico.

Atherina humboldtiana Cuvier and Valenciennes, Hist. Nat. Poiss., X, 1835, 355 (479), Mexico.

Atherina vomerina Cuvier and Valenciennes, loc. cit., 357 (481), lake near City of Mexico.

1964. *Chirostoma regani* Jordan and Hubbs.

Valley of Mexico; Lake Patzcuaro.

Chirostoma regani Jordan and Hubbs, Leland Stanford Univ. Pub., Univ. Ser., 1919, 74, Xochoamilco, Morelos, Mexico. After *Chirostoma breve* Regan; not of Steindachner.

Subgenus LETHOSTOLE Jordan and Evermann.

1965. *Chirostoma chapalæ* Jordan and Snyder.
Laguna de Chapala, Mexico
Chirostoma chapalæ Jordan and Snyder, Bull. U. S. Fish Com., XIX,
1899, 135, fig. 13, Laguna de Chapala, Mexico, at Ocotlan.
1966. *Chirostoma consocium* Jordan and Hubbs.
Basin of Rio Lerma, Mexico.
Chirostoma consocium Jordan and Hubbs, Rev. Silversides, in Leland
Stanford Univ. Pub. Univ. Ser., 1919, 76, Lake Chapala at La Palma,
Mexico.
1967. *Chirostoma grandocule* (Therese von Baiern).
Lake Patzcuaro, Mexico.
Atherinichthys grandoculis Therese von Baiern, Anz. Kais. Akad. Wiss.
Wien, 1894, Lake Patzcuaro, Mexico.
1968. *Chirostoma promelas* Jordan and Snyder.
Laguna de Chapala; Guadalajara, Mexico.
Chirostoma promelas Jordan and Snyder, Bull. U. S. Fish Com., XIX,
1899, 136, market of Guadalajara, Mexico, from Laguna de Chapala.
1969. *Chirostoma lucius* Boulenger.
Lake Chapala, Mexico.
Chirostoma lucius Boulenger, Ann. and Mag. Nat. Hist., ser. 7, V,
January, 1900, 54, Lake Chapala, Mexico.
Chirostoma crystallinum Jordan and Snyder, Bull. U. S. Fish Com.,
XIX, 1899 (1900), 139, fig. 16, Laguna de Chapala, Mexico, at
Ocotlan.
1970. *Chirostoma diazi* Jordan and Snyder.
Lake Chapala, Mexico.
Chirostoma diazi Jordan and Snyder, Bull. U. S. Fish Com., XIX,
1899 (1900), 137, fig. 15, Lake Chapala, Mexico.
1971. *Chirostoma sphyraena* Boulenger.
Lake Chapala, Mexico.
Chirostoma sphyraena Boulenger, Ann. Mag. Nat. Hist., ser. 7, V, 1900,
54, Lake Chapala, Mexico.
Chirostoma lermæ Jordan and Snyder, Bull. U. S. Fish Com., XIX,
1899 (1900), 142, fig. 19.
1972. *Chirostoma ocotlane* Jordan and Snyder
Lago de Chapala, Mexico.
Chirostoma ocotlane Jordan and Snyder, Bull. U. S. Fish Com., XIX,
1899 (1900), 140, Lago de Chapala, Mexico.
1973. *Chirostoma estor* Jordan. *Pescado blanco de Chapala*.
Lake Chapala, Lake Patzcuaro, Lake Zirahuén, and Lake Xochimilco,
Mexico.
Chirostoma estor Jordan, Proc. U. S. Nat. Mus., II, 1879, 298, Lake
Chapala (an error for Lake Patzcuaro).
Atherinichthys albus Therese von Baiern, Anz. Kais. Akad. Wiss. Wien,
1894, 148, Lake Patzcuaro, Mexico.
- Genus 660. LABIDESTHES Cope.
Labidesthes Cope, Proc. Amer. Phil. Soc., XI, 1870, 455 (*Chirostoma
sicculum* Cope).
1974. *Labidesthes sicculus* (Cope). *Brook silverside; Skipjack; Glassfish*.
Lake Ontario and southern Michigan to Iowa, Florida, and Texas,
clear streams and lakes.
Chirostoma sicculum Cope, Proc. Acad. Nat. Sci. Phila., XVII, 1865,
81, Grosse Isle, Detroit River, Mich.
- Genus 661. LEURESTHES Jordan and Gilbert. *Grunion*.
Leuresthes Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 29
(*Atherinopsis tenuis* Ayres).
1975. *Leuresthes tenuis* (Ayres). *Grunion*.
Sandy coasts of California from San Francisco to Lower California;
abundant southward.
Atherinopsis tenuis Ayres, Proc. Calif. Acad. Nat. Sci., II, 1860, 75,
San Francisco.
Leuresthes cramerii Jordan and Evermann, Fishes North and Mid.
Amer., 1896, 802, Ballenas Bay, Lower California.

- Genus 662. MUGILOPS** Meek and Hildebrand.
Mugilops Meek and Hildebrand, Field Mus. Nat. Hist., Zool., XV, 1923, 271 (*M. cyanellus* Meek and Hildebrand).
1976. *Mugilops cyanella* Meek and Hildebrand.
 Panama Bay.
Mugilops cyanellus Meek and Hildebrand, Field Mus. Nat. Hist., Zool., XV, 1923, 271, Pl. XXII, fig. 1, Balboa, Panama Bay.
1977. *Mugilops marina* Meek and Hildebrand.
 Panama Bay.
Mugilops marinus Meek and Hildebrand, Field Mus. Nat. Hist., Zool., XV, 1923, 272, Pl. XXII, fig. 2, Porto Bello, Panama Bay.
- Genus 663. COLPICHTHYS** Hubbs.
Colpichthys Hubbs, Proc. Acad. Nat. Sci. Phila., LXVIX, 1917 (1918), 67 (*Atherinops regis* Jenkins and Evermann).
1978. *Colpichthys regis* (Jenkins and Evermann). *Pez del rey*.
 Gulf of California.
Atherinops regis Jenkins and Evermann, Proc. U. S. Nat. Mus., XI, 1888, 138, Bay of Guaymas, Sonora, Mexico.
- Genus 664. ATHERINOPS** Steindachner. *Pascadillos del rey*.
Atherinops Steindachner, Ichth. Beitr., III, 1875, 61 (*Atherinopsis affinis* Ayres).
1979. *Atherinops affinis* (Ayres). *Little smelt; Pescadillo del rey*.
 Coast of California, and north to Oregon.
Atherinopsis affinis Ayres, Proc. Calif. Acad. Nat. Sci., II, 1860, 73, San Francisco.
Atherinops oregona Jordan and Snyder, Proc. U. S. Nat. Mus., XLV, 1913, 575, pl. 46, Yachats River, Oreg.
1980. *Atherinops insularum* Gilbert.
 San Clemente and San Nicolas Islands of the Santa Barbara Group; Guadalupe Island.
Atherinops insularum Gilbert, Proc. U. S. Nat. Mus., XIV, 1891, 549, San Clemente, San Nicolas, and Guadalupe Islands.
1981. *Atherinops insularum cedroscensis* Hubbs.
 Shores of Cedros and San Benito Islands, Lower California.
Atherinops insularum cedroscensis Hubbs, Bull. Amer. Mus. Nat. Hist., XXXVIII, 1918, 434, southeast side of Cedros Island, Lower California.
1982. *Atherinops insularum guadalupæ* Hubbs.
 Guadalupe Island, off Lower California.
Atherinops insularum guadalupæ Hubbs, Bull. Amer. Mus. Nat. Hist., XXXVIII, 1918, 435, Guadalupe Island.
- Genus 665. ATHERINOPSIS** Girard. *Pescado del rey*.
Atherinopsis Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 134 (*A. californiensis* Girard).
1983. *Atherinopsis californiensis* Girard. *California blue smelt; Pescado del rey; Peize rey; Pesce rey*.
 Coast of California, from Cape Mendocino to Ballenas Bay, Lower California; abundant.
Atherinopsis californiensis Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 134, San Francisco, Calif.
1984. *Atherinopsis sonoræ* Osburn and Nichols.
 Cedros Island, Lower California.
Atherinopsis sonoræ Osborn and Nichols, Bull. Amer. Mus. Nat. Hist., XXXV, 1916, 156, fig. 8, Cedros Island, Lower California.

Family 156. MUGILIDÆ. Mulletts

- Genus 666. MUGIL** Linnæus. *Striped mullets* (soft dorsal and anal not scaled).
Mugil Artedi, in Linnæus, Syst. Nat., Ed. X, 1758, 316 (*M. cephalus* Linnæus).
Arnion Gistel, Thierreich, 1848, X (*M. cephalus* L.).

1985. *Mugil brasiliensis* Agassiz. *Liza*; *Lebranchi*; *Queriman*; *Blueback mullet*; *Fantail mullet*.
Cuba to Patagonia; West Indies; Brazil; Habana, probably north to Virginia.
Mugil brasiliensis Agassiz, in Spix, Pisc. Brasil, 134 (234 by mispaging), 1829, pl. 72, Atlantic Ocean off Brazil.
Mugil liza Cuvier and Valenciennes, Hist. Nat. Poiss., XI, 1836, 61 (83), Brazil; Porto Rico; Maracaibo; Surinam; Martinique.
Mugil lebranchi Poey, Memorias, II, 1861, 260, plate 18, fig. 3 Cuba.
Querimana gyraus Jordan and Gilbert, Proc., U. S. Nat. Mus., VII, 1884, 26, Key West; "the whirling mullet" a little fish, with two anal spines, now regarded as the young of *Mugil*, but if so of *M. brasiliensis* as the scales are 28 to 29 (41 in *Mugil cephalus*). It is recorded from Woods Hole and Fortress Monroe; in revolving schools, perhaps mixed with the young of *M. cephalus*.
1986. *Mugil cephalus* Linnæus. *Common mullet*; *Striped mullet*; *Céfalo*; *Macho*; *Machuto*; *Lisa cabezuda*; *Callyfaver mullet*.
Cosmopolitan; coasts of southern Europe and northern Africa; Atlantic coast of America from Cape Cod to Brazil; Pacific coast of America from Monterey to Chile; Hawaii; Japan; entering rivers. Perhaps more than one species included, but we fail to detect differences. If different, the American species must be known as *Mugil albula* of the Atlantic and *Mugil mexicanus* of the Pacific.
Mugil cephalus Linnæus, Syst. Nat., Ed. X, 1758, 316, Europe; based on Artdi.
Mugil albula Linnæus, Syst. Nat., Ed. XII, 1766, 520, Charleston, S. C.
? *Mugil tang* Bloch, Ichthyologia, 1794, 171, Africa.
? *Mugil plumieri* Bloch, loc. cit., 173, St. Vincent; on a drawing by Plumier.
Mugil lineatus Mitchill, in Cuvier and Valenciennes, Hist. Nat. Poiss., XI, 1836, 71 (96), New York.
Mugil rammelsbergii Tschudi, Fauna Peruana, Ichth., 1845, 20, Peru.
Mugil berlandieri Girard, U. S. and Mex. Bound. Surv., 1859, 20, pl. 10, figs. 1 to 4, St. Josephs Island, Indianola, Brazos Santiago; Brazos; Galveston; all on coast of Texas.
Mugil guentheri Gill, Proc. Acad. Nat. Sci. Phila., XXI, 1863, 169, western coast of Central America; not of Steindachner.
Mugil mexicanus Steindachner, Ichth. Beitr., III, 1875, 58, Acapulco, Mexico.
- Genus 667. *QUERIMANA* Jordan and Gilbert. *White mullets*. (Soft dorsal and anal closely scaled.)
Querimana Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 588 (*Myxus harengus* Günther, now regarded as the young of *Mugil curema*).
1987. *Querimana curema* (Cuvier and Valenciennes). *White mullet*; *Blueback mullet*; *Lisa*; *Lisa blanca*.
Both coasts of America, Cape Cod to Brazil and Mazatlan to Chile.
Mugil curema Cuvier and Valenciennes, Hist. Nat. Poiss., XI, 1836, 64 (87), Brazil; Martinique; Cuba.
Mugil petrosus Cuvier and Valenciennes, loc. cit., 65 (89), Brazil; Surinam; Gulf of Mexico; Cuba.
Myxus harengus Günther, Cat., III, 1861, 467, Pacific coast of Central America; young examples with two anal spines.
1988. *Querimana incilis* (Hancock). *Trench mullet*.
Waters of Central America; Rio Chagres to Pará and Bahia.
Mugil incilis Hancock, Quart. Jour. Sci., 1830, 127, Guiana.
Mugil guentheri Steindachner, Ichth. Notizen, I, 1864, 12, British Guiana.
1989. *Querimana thoburni* (Jordan and Starks).
Pacific coast of tropical America, from Guatemala to Galapagos Islands.
Mugil thoburni Jordan and Starks, in Jordan and Evermann, Fishes North and Mid. Amer., 1896, 812, Galapagos Islands.

1990. *Querimana hospes* (Jordan and Culver). *Lisita*.
West coast of Mexico to Panama Bay.
Mugil hospes Jordan and Culver, in Jordan, Proc. Calif. Acad. Sci., V, 1895, 422, pl. 31, Mazatlan, Mexico.
1991. *Querimana gaimardiana* (Desmarest). *Redeye mullet; Liza ojo de Perdiz*.
Florida Keys to Cuba; Key West.
Mugil gaimardianus Desmarest, Dict. Class., 1831, pl. 109, Cuba.
1992. *Querimana setosus* (Gilbert).
Clarion Island of the Revillagigedo Group.
Mugil setosus Gilbert, Proc. U. S. Nat. Mus., XIV, 1891, 549, Clarion Island.
1993. *Querimana trichodon* (Poey). *Fantail mullet*.
Florida Keys to Brazil; Key West.
Mugil trichodon Poey, Ann. Lyc. Nat. Hist. N. Y., XI, 1875, 66, pl. 8, figs. 4-8, Cuba.
- Genus 668. **CHÆNOMUGIL** Gill.
Chænomugil Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 169 (*Mugil proboscideus* Gunther).
1994. *Chænomugil proboscideus* (Günther).
Pacific coast of tropical America; M: zatlan; Cordova; Panama.
Mugil proboscideus Gunther, Cat., III, 1861, 459, Island of Cordova (Cardon), west coast of Central America.
- Genus 669. **DAJAUS** Cuvier and Valenciennes. *Mountain mullets*.
? *Agonostomus* Bennet, Proc. Zool. Soc. Lond., I, 1830, 105 (*A. telfairii* Bennett).
Dajaus Cuvier and Valenciennes, Hist. Nat. Poiss., XI, 1836, 122 (164) (*Mugil monticola* Bancroft).
Neomugil Vaillant, Bull. Soc. Philom., Paris, 1894, 73 (*N. digueti* Vaillant).
1995. *Dajaus monticola* (Bancroft). *Trucha; Mountain mullet*.
Fresh waters of the West Indies and the Atlantic and Pacific streams of Mexico and Central America.
Mugil monticola Bancroft, in Griffith's ed. Cuvier's Animal Kingdom, Fishes, 1836, 367, pl. 36, Jamaica.
Mugil irretitus Gosse, Nat. Sojourn Jamaica, 1851, 84, Jamaica.
Agonostoma nasutum Günther, Cat., III, 1861, 463, Rio Geronimo, Guatemala.
Neomugil digueti Vaillant, Bull. Soc. Philom., IV, 1894, 73, Lower California.
Agonostomus salvini Regan, Ann. Mag. Nat. Hist., ser. XIX, 1907, 7, and Biol. Cent. Amer., Pisces., 1907, 68, Pl. XI, fig. 2, Nacasil, Guatemala.
1996. *Dajaus percoides* (Gunther).
San Domingo.
Agonostoma percoides Gunther, Cat., III, 1861, 464, San Domingo; perhaps not distinct from *Dajaus monticola*.
1997. *Dajaus microps* (Gunther).
West Indies and Central America.
Agonostoma microps Günther, Cat., III, 1861, 462; probably West Indies.
- Genus 670. **JOTURUS** Poey.
Joturus Poey, Memorias, II, 1861, 263 (*J. pichardi* Poey).
Xenorhynchichthys Regan, Ann. Mag. Nat. Hist., II, 1908, 461 (*Joturus stipes* Jordan and Gilbert).
1998. *Joturus pichardi* Poey. *Joturo*.
Rivers of Cuba; at the foot of waterfalls.
Joturus pichardi Poey, Memorias, II, 1861, 263, Rio Almendares, near Habana.

1999. *Joturus globiceps* (Günther). *Bobo*.
Rivers and cataracts of eastern Mexico, from Jalapa to Costa Rica and Panama.
Agonostoma globiceps Gunther, Ann. Mag. Nat. Hist., ser. 4, XIV, 1874, 370, Myzantla, Vera Cruz.
Joturus stipes Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 373, Rio Bayano, near Panama.

Family 157. SPHYRÆNIDÆ. Barracudas

Genus 671. SPHYRÆNA Röse.

- Sphyræna* Röse, in Artedi Piscium, 1793, 52 (*Esox sphyræna* Linnæus).
Sphyræna Artedi, in Bloch and Schneider, Syst. Ichth., 1801, 109 (*Esox sphyræna* Linnæus).
Agriosphyræna Fowler, Proc. Acad. Nat. Sci. Phila., LV, 1903, 749 (*Esox barracuda* Walbaum).

Subgenus SPHYRÆNA Röse.

2000. *Sphyræna sphyræna* (Linnæus). *European barracuda*; *Spet*; *Sennet*.
Coasts of southern Europe and neighboring islands, west to the Bermudas.
Esox sphyræna Linnæus, Syst. Nat., Ed. X, 1758, 313, Mediterranean Sea.
Esox spet Haly, Encycl. Metod. Poiss., 1787; after Linnæus.
Sphyræna vulgaris Cuvier and Valenciennes, Hist. Nat. Poiss., III, 1829, 242 (327), Mediterranean.
Sphyræna viridensis Cuvier and Valenciennes, loc. cit., 251 (339), St. Jago, Cape Verde Islands.
- 2001. *Sphyræna argentea* Girard. *California barracuda*; *Barracouta*.
Pacific coast, from San Francisco southward to Cape San Lucas.
Sphyræna argentea Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 144 San Diego, Calif.
Sphyræna lucasana Gill, loc. cit., XV, 1863, 86, Cape San Lucas.
2002. *Sphyræna ensis* Jordan and Gilbert. *Vicuda*.
Gulf of California to Panama.
Sphyræna ensis Jordan and Gilbert, Bull. U. S. Fish Com., II, 1882, 106, Mazatlan, Mexico.
2003. *Sphyræna borealis* DeKay. *Northern barracuda*; *Sennet*.
Atlantic coast of the United States, from Cape Cod to North Carolina.
Sphyræna borealis DeKay, N. Y. Fauna: Fishes, 1842, 39, pl. 60, New York.
2004. *Sphyræna guachancho* Cuvier and Valenciennes. *Guaguanche pelón*; *Guanuanche*.
West Indies north to Pensacola; Gulf Stream to Woods Hole.
Sphyræna guachancho Cuvier and Valenciennes, Hist. Nat. Poiss., III, 1829, 252 (342), Habana.
Sphyræna guntheri Haly, Ann. Mag. Nat. Hist., XV, 1875, 270, Colon.
2005. *Sphyræna picudilla* Poey. *Picudilla*; *Baracuda*.
West Indies, on the coasts of Cuba; Bahía.
Sphyræna picudilla Poey, Memorias, II, 1861, 162; Habana.
- Subgenus AGRIOSPHYRÆNA Fowler.
2006. *Sphyræna barracuda* (Walbaum). *Great barracuda*; *Picuda*; *Becuna*; *Short barracuda*.
West Indies and Brazil, north to Pensacola, Charleston, and the Bermudas; accidental to Woods Hole, Mass.
Umbra minor, etc. (the barracuda) Catesby, Fishes of Carolina, etc., II, 1743, 1, pl. 1, Bahamas.
Esox barracuda Walbaum, Artedi Piscium, III, 1792, 94; after Catesby.
Sphyræna sphyræna var. *picuda* Bloch and Schneider, ed. Bloch, Syst. Ichth., 1801, 110, Habana; after Parra.
Sphyræna becuna Lacépède, Hist. Nat. Poiss., V, 1803, pl. 9, fig. 3; after drawing by Plumier at Martinique.

Suborder RHEGNOPTERI

Family 158. POLYNEMIDÆ. Threadfins

Genus 672. POLYNEMUS Linnæus. *Barbudos*.

Polynemus (Gronow) Linnæus, Syst. Nat., Ed. X, 1758, 317, (*P. quinquarius*, *virginicus*, and *paradiseus* Linnæus); properly restricted by Gunther and by general usage to *Polynemus paradiseus* Linnæus.

Polydactylus Lacépède, Hist. Nat. Poiss., V, 1803, 419 (*P. plumieri* Lacépède = *Polynemus virginicus* Linnæus).

Trichidion Klein, in Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 274 (*Polynemus virginicus* Linnæus).

2007. *Polynemus approximans* Lav and Bennett. *Raton*

Pacific coast of tropical America; Guaymas to Panama; Santa Catalina and San Diego.

Polynemus approximans Lav and Bennett, Beechey's Voyage, Zool., Fish., 1839, 57, Mazatlan, Mexico.

Polynemus californiensis Thominot, Bull. de la Soc. Philom. de Paris, Séance, 27 Juin, 1886, (7), X, 161, California.

2008. *Polynemus virginicus* Linnæus *Barbudo*; *Barbu*; *Catfish*.

West Indies, north to the Florida Keys.

Polynemus virginicus Linnæus, Syst. Nat., Ed. X, 1758, 317, America.

Polydactylus plumieri Lacépède, Hist. Nat. Poiss., V, 1803, 419, Martinique; from a drawing by Plumier.

Polynemus mango Lacépède, loc. cit., 413, America, after Linnæus.

Polynemus americanus Cuvier and Valenciennes, loc. cit., III, 1829, 291 (393), Cayenne, San Domingo, Martinique.

Polynemus oligodon Günther, Cat., II, 1860, 322, Rio Janeiro.

2009. *Polydactylus opercularis* (Gill).

Pacific coast of tropical America, from Cape San Lucas to Panama.

Trichidion opercularis Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 168, Cape San Lucas.

Polynemus melanopoma Günther, Trans. Zool. Soc. Lond., VI, 1868, 421, San José de Guatemala.

2010. *Polynemus octonemus* Girard. *Threadfin*; *Eight-threaded threadfish*.

New York to the Rio Grande.

Polynemus octonemus Girard, Proc. Acad. Nat. Sci. Phila., X, 1858, 167, Brazos Santiago; Galveston.

Trichidion octofilis Gill, loc. cit., XIII, 1861, 280, New York.

Genus 673. PENTANEMUS Günther.

Pentanemus Günther, Cat., II, 1860, 331 (*Polynemus quinquarius* Linnæus).

2011. *Pentanemus quinquarius* (Linnæus).

Atlantic Ocean; West Indies to coast of Africa; rare.

Polynemus quinquarius Linnæus, Syst. Nat., Ed. X, 1758, 317, America; after Gronow.

Polynemus artedii Bennett, Proc. Zool. Soc. Lond., 1831, 146, Africa.

Polynemus macronemus Pel, Bydrage tot de Dierk., 1851, 9, Africa.

Series SCOMBRIFORMES

Family 159. ACANTHOCYBIIDÆ

Genus 674. ACANTHOCYBIUM Gill. *Petos*.

Acanthocybium Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 125 (*Cybium sara* Bennett).

2012. *Acanthocybium petus* (Poey). *Peto*.

West Indies north to Key West; recorded from Italy.

Cybium petus Poey, Memorias, II, 1861, 234, pl. 16, fig. 1, Habana.

Cybium verany Döderlein, Giorn. di Sci. Nat., ed. Econ., VIII, 1872, Palermo.

2013. *Acanthocybium solandri* (Cuvier and Valenciennes). *Ono*; *Peto*.

Warmer parts of the Pacific; Hawaii; Pacific coast of Mexico; and South Seas.

Cybium solandri Cuvier and Valenciennes, Hist. Nat. Poiss., VIII, 1831, 192, open seas; exact locality unknown; after Solander.

Family 160. CYBIIDÆ⁴

Genus 675. SIERRA Fowler.

Sierra Fowler, Proc. Acad. Nat. Sci. Phila., LVI, 1904 (1905), 766
(*Cybiium cavalla* Cuvier).

2014. *Sierra cavalla* (Cuvier) *Sierra*; *Kingfish*; *Cavalla*.

Tropical Atlantic; Florida Keys and Charleston; Cape Cod; Africa;
Brazil.

Cybiium cavalla Cuvier, Règne Animal, ed. 2, II, 1829, 200; after *Guarapuca* of Maregrave.

Cybiium immaculatum Cuvier and Valenciennes, Hist. Nat. Poiss., VIII, 1831, 140 (191), no locality.

Cybiium caballa Cuvier and Valenciennes, loc. cit., 187, Brazil.

Genus 676. SCOMBEROMORUS Lacépède.

Scomberomorus Lacépède, Hist. Nat. Poiss., III, 1802, 292 (*S. plumieri* Lacépède=*Scomber regalis* Bloch).

Polypterus Rafinesque, Anal. de la Nat., 1815, 89; substitute for *Scomberomorus*.

Chromotira Lockington, Proc. Acad. Nat. Sci. Phila., XXXI, 1879, 133
(*C. concolor* Lockington).

2015. *Scomberomorus maculatus* (Mitchill). *Spanish mackerel*; *Spaniard*;
Spotted cybium; *Bay mackerel*; *Spotted mackerel*.

East coast of America from Cape Ann to Brazil; common in Gulf of
Mexico but not recorded from Cuba.

Scomber maculatus Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 426,
New York; not of Couch.

2016. *Scomberomorus sierra* Jordan and Starks. *Sierra*.

Pacific coast of tropical America.

Scomberomorus sierra Jordan and Starks, in Jordan, Proc. Calif. Acad.
Sci., V, 1895, 428, Mazatlan, Mexico.

2017. *Scomberomorus regalis* (Bloch). *Sierra*; *Pintado*; *Cero*; *Sier*; *Siering*;
Searer; *Spotted cero*; *Kingfish*; *Black-spotted Spanish mackerel*.

Cape Cod to Brazil; Cuba.

Scomber regalis Bloch, Naturgesch. ausl. Fische, VII, 1793, 38, Marti-
nique; after a drawing by Plumier.

Scomberomorus plumieri Lacépède, Hist. Nat. Poiss., III, 1802, 292,
Martinique.

Cybiium acervum Cuvier and Valenciennes, Hist. Nat. Poiss., VIII, 1831,
136 (186), Martinique; Cuba; St. Domingo.

2018. *Scomberomorus concolor* (Lockington). *Monterey Spanish mackerel*.
Coast of California.

Chromotira concolor Lockington, Proc. Acad. Nat. Sci. Phila., XXXI,
1879, 133, Monterey, Calif.

Family 161. SCOMBRIDÆ

Genus 677. SCOMBER Linnæus.

Scomber Artedi, in Linnæus, Syst. Nat., ed. X, 1758, 297 (*S. scombrus*
Linnæus).

Cordylus Gronow, Cat. Fish., 1854, 163 (*Scomber scombrus* L.).

2019. *Scomber scombrus* Linnæus. *Common mackerel*; *Boston mackerel*;
Wawwhunnekesuog; *Caballa*.

North Atlantic; Norway and Labrador, south to Spain and Cape
Hatteras.

Scomber scombrus Linnæus, Syst. Nat., Ed. X, 1758, 297, Atlantic.

Scomber vernalis Mitchill, Trans. Lit. and Phil. Soc. N. Y., I, 1815,
423, Sandy Hook, N. J.

Genus 678. PNEUMATOPHORUS Jordan and Gilbert.

Pneumatophorus Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882,
593 (*Scomber pneumatophorus* De la Roche=*Scomber colias* Gmelin).

⁴ The family name *Cybidae* may be applied to the allies of *Scomberomorus* and *Cybiium*. The name may be preferred to one derived from *Scomberomorus*, as the genus *Cybiium* is also valid. *Cybiium comersoni*, the Asiatic type of *Cybiium* Cuvier, has but two gillrakers, while in *Scomberomorus* there are 8 to 11 below the angle. *Acanthocybiium* (giant fishes with the reticulated gills of a swordfish) should constitute a separate family. The earliest of the many fossils of this type are mainly allies of *Scomberomorus*.

- 2020. *Pneumatophorus grex* (Mitchill).** *Chub mackerel; Tinker mackerel; Easter mackerel; Thimble-eyed mackerel; Spanish mackerel of England.* The small mackerel called by the above names is very abundant on our Atlantic coast. It is very close to the similar species of Europe, *Scomber colias* Gmelin.
?Scomber colias Gmelin, Syst. Nat., 1788, 1329, Sardinia; after Cetti.
?Scomber lacertus Walbaum, Artedi Pisc., 1792, 209, Sardinia; after Cetti.
?Scomber pneumatophorus De la Roche, Ann. Mus. Nat. Hist., XIII, 1809, 315, Balearic Islands.
?Scomber macrophthalmus Rafinesque, Indice, 1810, 20 and 53, Palermo.
Scomber grex Mitchill, Trans. Lit. and Phil. Soc. N. Y., I, 1815, 422, New York.
?Scomber maculatus Couch, Mag. Nat. Hist., V, 1832, 22, England.
?Scomber undulatus Swainson, Nat. Hist. Fishes, Amphib., etc., II, 1839, 409, Sicily.
?Scomber gracilis Swainson, loc. cit., 410, Sicily.
Scomber deKayi Storer, Fishes Mass., 1867, 130, Massachusetts.
- 2021. *Pneumatophorus diego* (Ayres).** Coast of California; very abundant southward. Perhaps not separable from the Japanese species, *Scomber japonicus*; some small differences apparently permanent.
?Scomber japonicus Houttuyn, Verhand. Holl. Maatsch. Haarl., XX, 1782, 331, Japan.
?Scomber auratus Houttuyn, loc. cit., 333, Japan.
Scomber diego Ayres, Proc., Calif. Acad. Nat. Sci., I, 1856, 101, Santa Barbara, Calif.
- 2022. *Pneumatophorus australasicus* (Cuvier and Valenciennes).** North coast of Australia, from Moreton Bay, Queensland to Lord Howe Island, Hawaii and Socorro Island off the west coast of Mexico. *Scomber australasicus* Cuvier and Valenciennes, Hist. Nat. Poiss., VIII, 1831, 49, Australia.

Family 162. **KATSUWONIDÆ.** The victor fishes

- Genus 679. *KATSUWONUS* Kishinouye.** *Oceanic bonito.*
Katsuwonus Kishinouye, Scombroid Fish. Japan, Coll. Agric. Tokyo, VIII, 1923, 452 (*Scomber pelamis* L.).
- 2023. *Katsuwonus pelamis* (Linnæus).** *Oceanic bonito.* Open Atlantic; rarely north to Cape Cod and Bermudas on the Atlantic coast.
Scomber pelamis Linnæus, Syst. Nat., ed. X, 1758, 297, "in Pelago inter Tropicos."
Scomber pelamides Lacépède, Hist. Nat. Poiss., III, 1802, 14; after Linnæus.
- 2024. *Katsuwonus vagans* (Lesson).** *Aku; Pacific bonito.* Pacific Ocean, Hawaii, southern California, and Japan; inordinately abundant in open sea.
Thynnus vagans Lesson, Voy. Coquille, Zool., II, 1828, 162, pl. 32.
Thynnus affinis Cantor, Cat. Malay Fishes, 1849, 106.
- Genus 680. *EUTHYNNUS* Lütken.**
Euthynnus Lütken, Jordan and Evermann, Fishes North and Mid. Amer., 1896, 868 (*Thynnus thunnina* Cuvier and Valenciennes = *Scomber alletteratus* Rafinesque).
This genus proves to be quite distinct from *Gymnosarda*, with which it has been confused. *Gymnosarda* is an Asiatic ally of *Sarda*.
- 2025. *Euthynnus alletteratus* (Rafinesque).** *Little tunny; Bonito.* Warm seas; north in Gulf Stream to Cape Cod; rather common at New York in summer: West Indies; Mediterranean; Japan.
Scomber alletteratus Rafinesque, Caratteri, 1810, 46, Palermo.
Thynnus leachianus Risso, Eur. Mérid., III, 1826, 414, Nice.
Scomber quadripundatus Geoffrey St. Hilaire, Descr. Egypt. Poiss., 1827, pl. 24, fig. 3, Egypt.
Thynnus thunnina Cuvier and Valenciennes, Hist. Nat. Poiss., VIII, 1831, 76, (104), pl. 212, Mediterranean.
Thynnus brasiliensis Cuvier and Valenciennes, loc. cit., 80 (110), Brazil.
Thynnus brevipinnis Cuvier and Valenciennes, loc. cit., 81 (112), Mediterranean.

- 2026. *Euthynnus yaito*** Kishinouye. *Kawakawa; Yaito*.
Japan; Hawaii; Pacific coast of Mexico.
Euthynnus yaito Kishinouye, Scombroïd Fishes, 1923, 420, Japan.
- 2027. *Euthynnus lineatus*** Kishinouye.
Pacific coast of Mexico.
Euthynnus lineatus Kishinouye, Sici. Gakko, No. 111, 1920, 113; and
in Scombroïd Fishes, 1923, 430, fig 2, Manzanillo, Mexico.
- Genus 681. AUXIS** Cuvier. *Frigate mackerels*.
Auxis Cuvier, Règne Anim., ed. 2, II, 1829, 199 (*Scomber rochei* Risso =
Scomber thazard Lacépède).
- 2028. *Auxis rochei*** (Risso). *Frigate mackerel*.
Open Atlantic, at times northward to Cape Cod; perhaps not separable
from *A. thazard* (Lacépède) of the South Seas.
Scomber rochei Risso, Ichth. Nice, 1810, 165, Nice.
Scomber bisus Rafinesque, Caratteri, 1810, 45, Palermo.

Family 163. THUNNIDÆ. Tunnies and albacores

- Genus 682. SARDA** Cuvier. *Bonitos*.
Sarda Cuvier, Règne Animal, ed. 2, II, 1829, 199 (*Scomber pelamys*
Brünnich; not of Linnæus = *Scomber sarda* Bloch).
Pelamys Cuvier and Valenciennes, Hist. Nat. Poiss., VIII, 1831, 149
(*Scomber sarda* L.); name preoccupied
Palamita Bonaparte, Ittiologia Generale, 1831, 107, substitute for
Pelamys.
Creotroctes Gistel, Thierreich, X, 1848 (*Scomber sarda* L.); substitute
for *Pelamys*.
- 2029. *Sarda sarda*** (Bloch). *Bonito; Bone jack; Bone-eater; Skipjack*.
Atlantic ocean, on both coasts, north to Cape Cod; very abundant.
Scomber sarda Bloch, Naturgesch. Ausl. Fische, VII, 1793, 44, Europe.
Scomber mediterraneus Bloch and Schneider, Syst. Ichth., 1801, 23,
Marseilles; after Brünnich.
Scomber pelamitus Rafinesque, Caratteri, 1810, 44, pl. 2, Palermo.
- 2030. *Sarda lineolata***⁴⁵ (Girard). *California bonito; Skipjack*.
California, Patagonia and Japan; if *S. orientalis* is not distinct.
? *Pelamys chilensis* Cuvier and Valenciennes, Hist. Nat. Poiss., VIII,
1831, 118 (163), Valparaiso.
? *Pelamys orientalis* Temminck and Schlegel, Fauna Japon., Poiss., 1844,
99, pl. 52, Japan.
Pelamys lineolata Girard, Pac. R. R. Surv., X, 1858, 106, San Diego,
Calif.
- 2031. *Sarda velox*** Meek and Hildebrand.
Panama.
Sarda velox Meek and Hildebrand, Field Mus. Nat. Hist., Zool., XV,
1923, 320, pl. 24, Panama market. Reported by Nichols and
Breder from Block Island, R. I.; probably an error.
- Genus 683. THUNNUS** South. *Great tunnies*.
Thynnus Cuvier, Règne Anim., ed. 1, 1817, 313 (*Scomber thynnus* L.);
name preoccupied in Lepidoptera.
Thynnus South, Encyclop. Metrop., V, 1845, 620 (*Scomber thynnus*
Linnaeus); substitute for *Thynnus*.
Albacora Jordan, Man. Vert., ed. V, 1888, 106 (*Scomber thynnus* L.).
Orcynus Cooper, Proc., Calif. Acad. Nat. Sci., III, 1863, 77 (*Scomber*
thynnus L.); not *Orcynus* Gill, 1861, the name originally a misprint
for *Orcynus*.
- 2032. *Thunnus saliens*** Jordan and Evermann. *Leaping tuna*.
Eastern Pacific; lower California, north to mouth of Columbia River;
the type locality Santa Catalina Island.
Thunnus saliens Jordan and Evermann, Occ. Papers, Calif. Acad. Sci.,
XII, Sept. 30, 1926, 10, Santa Catalina Island, Calif.

⁴⁵ This species is well separated from *Sarda sarda* of the Atlantic. *Sarda orientalis* of Japan and Hawaii is nearly related, and both may be inseparable from *S. chilensis* of Chile, as has been assumed by Jordan and Evermann (1896).

2033. *Thunnus secundodorsalis* Storer.
North Atlantic; New York to Labrador.
Thunnus secundodorsalis Storer, Hist. Fish. Mass., 1875, 163, Pl. XXII,
fig 1, Provincetown, Mass.
2034. *Thunnus subulatus* (Poey).
West Indies; Cuba.
Orcynus subulatus Poey, Enumeratio, 1875, 71, Cuba; perhaps same
as *T. coretta*.
2035. *Thunnus coretta* (Cuvier and Valenciennes) *Bonita of Martinique*.
West Indies.
Tynnus coretta Cuvier and Valenciennes, Hist. Nat. Poiss., VIII, 1831,
102, a young fish 11 inches long from Martinique.
- Genus 684. GERMO Jordan. *Long-finned albacores*.
Orcynus Cuvier, Règne Anim., Ed. I, 1817, 314 (*Scomber germo*
Lacépède = *Scomber alalunga* Gmelin; not *Orcynus* Rafinesque, 1810,
which is *Scomberoides*)
Germo Jordan, Proc Acad. Nat. Sci. Phila., XL, 1888, 180 (*Scombrus*
alalunga Gmelin); substitute for *Orcynus*, preoccupied.
2036. *Germo alalunga* (Gmelin). *Albacore; Alalonghi*
Mediterranean; Atlantic; all warm seas.
Scomber alalunga Gmelin, Syst. Nat., I, 1788, 1330, Sardinia; mis-
printed *Alatunga*.
Thynnus atlanticus Lesson, Voy. Coquille Zool., II, 1830, 165, Atlantic
ocean.
Thynnus balteatus Cuvier and Valenciennes, Hist. Nat. Poiss., VIII,
1831, 98 (136), coast of Brazil ("vis-à-vis la Trinité du Brésil, par les
20° de latitude Australe").
2037. *Germo germo* (Lacépède).
Pacific Ocean; California; Hawaii, Japan, and southward.
Scomber germo Lacépède, Hist. Nat. Poiss., II, 1800, 598, lat. 17° S.,
long 103° W.
Thynnus pacificus Cuvier and Valenciennes, op. cit., VIII, 1831, 96
(133), lat. 26° S; long. 103° W.
- Genus 685. NEOTHUNNUS Kishinouye. *Yellow-finned albacores*
Neothunnus Kishinouye, Coll. Agric. Tokyo, VIII, 1923, 445 (*Thynnus*
macropterus Temminck and Schlegel).
2038. *Neothunnus catalinae* Jordan and Evermann. *Yellow-finned albacore*.
Open Pacific; southern California, about Santa Catalina Island.
Neothunnus catalinae Jordan and Evermann, Occ. Paper No. 12, Calif.
Acad. Sci., Sept. 30, 1926, 19, pl. 4, Santa Catalina Island, Calif.
2039. *Neothunnus albacores* (Bonnaterre). *West Indies long-finned albacore*.
West Indies.
Scomber albacores Bonnaterre, Encyc. Ichth., 1788, 140, Jamaica; based
on Sloane; not *albacora* Lowe.
Scomber sloani Cuvier and Valenciennes, Hist. Nat. Poiss., VIII, 1831,
107 (148), Jamaica; after Sloane.
2040. *Neothunnus allisoni* (Mowbray). *Allison's tuna*.
Coast of Florida.
Thunnus allisoni Mowbray, Copeia, No. 78, 1920, 9, with text fig.,
Biscayne Bay, east coast of Florida.

Family 164. GEMPYLIDÆ. Snake mackerel; Escolares

Genus 686. ESCOLAR Jordan and Evermann.

- Escolar* Jordan and Evermann, in Goode and Bean, Oceanic Ichth.,
1896, 519 (*Thysitops violaceus* Bean).
Bipinnula Jordan and Evermann, Fishes North and Mid. Amer., 1896,
878 (*Thysitops violaceus* Bean); duplication of names accidental
through noncorrection of proofs.

2041. *Escolar violaceus* (Bean).

- Atlantic coast of America in deep water; LaHave Bank.
Thysitops violaceus Bean, Proc. U. S. Nat. Mus., X, 1887, 513, LaHave
Bank; perhaps the same as *Escolar niger*.

2042. *Escolar niger* (Poey).

Cuba.

Thyrsites niger Poey, Enumeratio, 1875, 74, deep water off Cuba.Genus 687. *RUVETTUS* Cocco. *Escolares*.*Ruvettus* Cocco, Giorn. Sci. Sicilia, XLII, 1829, 2 (*R. pretiosus* Cocco).*Aplurus* Lowe, Trans. Zool. Soc. London, II, 1841, 180 (*A. simplex* Lowe).*Acanthoderma* Cantraine, Jour. Acad. Sci. Belles-Lettres Bruxelles, X, 1837 (*A. temminckii*).2043. *Ruvettus pretiosus*⁴⁶ Cocco. *Escolar*; *Rovetto*; *Ruvetto*; *Chucolar*; *Oilfish*; *Scounfish*; *Plaintail*.

Mediterranean and westward to Cuba in Atlantic.

Ruvettus pretiosus Cocco, in Giornale di Scienze per la Sicilia, XLII, 1829, 21, Messina.*Tetragonurus simplex* Lowe, Proc. Zool. Soc. Lond., 1833, 143, Madeira.*Ruvettus temminckii* Cantraine, Giorn. Sci. Ft. Lit. Pisa, 1833, Malta; fide Poey.*Thyrsites acanthoderma* Lowe, Proc. Zool. Soc. Lond., 1839, 78, Madeira.*Thyrsites scholaris* Poey, Memorias, I, 1854, 372, pl. 32, fig. 1, Cuba.Genus 688. *EPINNULA* Poey.*Epinnula* Poey, Memorias, I, 1854, 369 (*E. magistralis* Poey).2044. *Epinnula magistralis* Poey. *Dómine*.

Habana.

Epinnula magistralis Poey, Memorias, I, 1854, 369, Habana.Genus 689. *NEALOTUS* Johnson.*Nealotus* Johnson, Proc. Zool. Soc. Lond., 1865, 434 (*N. tripes* Johnson).2045. *Nealotus tripes* Johnson.

About Madeira in deep water; between the Bahamas and Bermudas.

Nealotus tripes Johnson, Proc. Zool. Soc. Lond., 1865, 434, Madeira.Genus 690. *PROMETHICHTHYS* Gill. *Conejos*.*Prometheus* Lowe, Trans. Zool. Soc. Lond., II, 1841, 181, Madeira (*Psempylus prometheus* Cuvier and Valenciennes); name preoccupied.*Promethichthys* Gill, Mem. Nat. Acad. Sci., VI, 1893, 115 and 123 (*Prometheus atlanticus* Lowe=*Gempylus prometheus* Cuvier and Valenciennes).2046. *Promethichthys prometheus* (Cuvier and Valenciennes). *Rabbitfish*; *Coelho*; *Conejo*; *Bermuda catfish*.

Tropical Atlantic; Cuba; Bermuda.

Gempylus prometheus Cuvier and Valenciennes, Hist. Nat. Poiss., VIII, 1831, 156 (213), pl. 222, St. Helena.Genus 691. *PTAX*⁴⁷ Jordan and Evermann.*Ptax* Jordan and Evermann, Proc. Calif. Acad. Sci., 4th ser., XVI, Apr. 27, 1927, 504 (*Dicrotus parvipinnus* Goode and Bean).2047. *Ptax parvipinnis* (Goode and Bean).

Western Atlantic in deep water.

Dicrotus parvipinnis Goode and Bean, Oceanic Ichth., 1895, 201, fig. 212, Gulf Stream at Albatross stations 2537, 2542, and 2601, at about 40° N., 70° W.Genus 692. *GEMPYLUS* Cuvier and Valenciennes. *Snake mackerels*.*Gempylus* Cuvier and Valenciennes, Hist. Nat. Poiss., VIII, 1831, 152 (207) (*G. serpens* Cuvier and Valenciennes).*Lemnisoma* Lesson, Voyage Coquille, Poiss., 1826 (1831), 160, the date later than that of *Gempylus*, as the work of subsequent Cuvier and Valenciennes is quoted by Lesson (*Lemnisoma thyrsioides* Lesson).*Zypothyca* Swainson, Nat. Hist. Fish., Amphib., etc., II, 1839, 239 (*Gempylus coluber* Cuvier and Valenciennes).⁴⁶ A species very similar, regarded by Doctor Gudger as the same, is *Ruvettus pretiosus* Weber=*R. pacificus* Jordan and Jordan, from the tropical Pacific north to Hawaii.⁴⁷ From *tax*, a rabbit, conejo, a Spanish name of *Promethichthys*. The genus is characterized by the number of fin rays—D. XXI, 11, A. II, 8—while in *Promethichthys* the rays are D. XVII, 19-II; A. 16-II. *Dicrotus* has two lateral lines, the fin rays about as in *Promethichthys*.

2048. *Gempylus serpens* Cuvier and Valenciennes.

Deep seas of the Atlantic.

Gempylus serpens Cuvier and Valenciennes, Hist. Nat. Poiss., VIII, 1831, 152 (207), Martinique*Gempylus ophidianus* Poey, Memorias, II, 1861, 246, Cuba.**Family 165. TRICHIURIDÆ. Hairtails; Cutlassfishes****Genus 693. TRICHIURUS Linnæus. Hairtails.***Trichiurus* Linnæus, Syst. Nat., Ed. X, 1758, 246 (*T. lepturus* Linnæus); after Artedi.*Gymnogaster* Gronow, Mus. Ichth., I, 1754, 17, No. 47, and Zooph., I, 1763, 136 (*Trichiurus lepturus* Linnæus).*Enchelyopus* Klein, in Bleeker, Versl. Akad. Amsterdam, XIV, 1862, 109 (*Trichiurus lepturus* Linnæus); after Klein; not of Schneider nor of Gronow.*Lepturus* (Artedi) Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 126 (*Trichiurus lepturus* Linnæus, a revival of a pre-Linnæan name).**2049. *Trichiurus lepturus* Linnæus. Cutlassfish; Scabbardfish; Silverfish; Sable; Savola; Hairtail; Ribbonfish; Silvery hairtail.**

Western Atlantic north to New Jersey; West Indies.

Trichiurus lepturus Linnæus, Syst. Nat., Ed. X, 1758, 246, America; after *Lepturus* of Artedi.*Trichiurus argenteus* Shaw, Gen. Zool., IV, 1803, 90, pl. 12; after Linnæus.**2050. *Trichiurus nitens* Garman.**

Off Galapagos Islands. This or a similar species in the Gulf of California.

Trichiurus nitens Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 69, off Galapagos Islands, Albatross stations 3354, 3389.**Genus 694. APHANOPUS Lowe.***Aphanopus* Lowe, Proc. Zool. Soc. Lond., Pt. VI, 1839, 79 (*A. carbo* Lowe).**2051. *Aphanopus minor* Collett.**

East coast of Greenland.

Aphanopus minor Collett, Vidensk. Selsk. Forhandl. Christiania, No. 19, 1836, 3, east coast of Greenland at 65° N., 31° W.**Genus 695. EVOXYMETOPON Poey. Tirantes.***Evoxymetopon* Poey, in Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 227 (*E. tæniatus* Poey).**2052. *Evoxymetopon tæniatus* Poey. Tirante; Tyrantfish.**

Cuba.

Evoxymetopon tæniatus Poey, in Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 228, Cuba.**Genus 696. LEPIDOPUS Gouan. Frostfishes.***Lepidopus* Gouan, Hist. Nat. Poiss., 1770, 107 and 185 (*gouani*).*Vandellius* Shaw, Gen. Zool., IV, 1803, 199 (needless substitute for *Lepidopus* Gouan).*Scarcana* Rafinesque, Caratteri, 1810, 20 (*S. argyrea* Rafinesque).*Xiphotheca* Montagu, Werner. Mus., I, 1812, 82 (*Lepidopus caudatus* Euphrasen).**2053. *Lepidopus xantusi* Goode and Bean. Scabbardfish.**

Avalon, Santa Catalina; Lower California north to Santa Catalina, Calif.; San José del Cabo, Cape San Lucas.

Lepidopus xantusi Goode and Bean, Oceanic Ichth., 1895, 519, Cape San Lucas.**Genus 697. BENTHODESMUS Goode and Bean.***Benthodesmus* Goode and Bean, Proc. U. S. Nat. Mus., IV, 1881, 380 (*B. elongatus* Goode and Bean, not *Lepidopus elongatus* Clarke = *Benthodesmus atlanticus* Goode and Bean).**2054. *Benthodesmus atlanticus* Goode and Bean.**

Western edge of Grand Banks of Newfoundland in 80 fathoms.

Benthodesmus elongatus Goode and Bean, Proc. U. S. Nat. Mus., IV, 1881, 380-383; not of Clarke.*Benthodesmus atlanticus* Goode and Bean, Oceanic Ichth., 1895, 205, Grand Banks.

Series XIPHIIFORMES

Family 166. ISTIOPHORIDÆ. Sailfishes; Spearfishes

Genus 698. ISTIOPHORUS Lacépède. *Sailfishes*.

Istiophorus Lacépède, Hist. Nat. Poiss., III, 1803, 374 (*I. gladiifer* Lacépède=*Scomber gladius* Broussonet).

Notistium Herrmann, Obs. Zool., 1804, 305 (*N. gladius* Herrmann).

Zanclurus Swainson, Nat. Hist. Fish., Amphib., etc., II, 1839, 239 (*Histiophorus indicus* Cuvier and Valenciennes=*H. gladius*).

Histiophorus of authors, revised spelling.

2055. *Istiophorus americanus* (Cuvier and Valenciennes).

Brazil, and West Indies, north to Woods Hole.

Histiophorus americanus Cuvier and Valenciennes, Hist. Nat. Poiss., VIII, 1831, 303, Brazil; after Guebucü of Marcgrave.

2056. *Istiophorus wrighti* Jordan and Evermann.

West Indies northward to Florida.

Istiophorus wrighti Jordan and Evermann, Occ. Paper No. 12, Calif. Acad. Sci., Sept. 30, 1926, 43, pl. 12, fig. 2, coast of Florida.

2057. *Istiophorus greyi* Jordan and Hill. *Mexican sailfish; Pacific volador*.

Pacific coast of Mexico, north to Cape San Lucas.

Istiophorus greyi Jordan and Hill, in Jordan and Evermann, Occ. Paper No. 12, Proc. Calif. Acad. Sci., Sept. 30, 1926, 41, pl. 14, near Cape San Lucas, Lower California.

2058. *Istiophorus volador* Jordan and Evermann. *Volador; Florida sailfish*
About Florida Keys.

Istiophorus volador Jordan and Evermann, Occ. Paper No. 12, Calif. Acad. Sci., Sept. 30, 1926, 46, pl. 12, fig. 1, Long Key, Fla.

Istiophorus maguirei Jordan and Evermann, loc. cit., 45, pl. 13, West Indies; apparently young of *volador*.

Genus 699. MAKAIRA Lacépède. *Marlinspike fishes; Spearfishes*.

Makaira Lacépède, Hist. Nat. Poiss., IV, 1803, 688 (*M. nigricans* Lac.).

2059. *Makaira mazara* (Jordan and Snyder). *Black marlin; Kurokajiki*
(*Black spearfish*); *Mazaara* (*real swordfish*); *Kuroka* (*black marlin*).

Pacific Ocean, from Japan to Hawaiian Islands and the Channel Islands, Calif.

Tetrapturus mazara Jordan and Snyder, Jour. Coll. Sci. Imp. Univ. Tokyo, XV, May 20, 1901, 4, 305, Misaki, Japan.

2060. *Makaira ampla* (Poey). *Aguja de Casta*.

West Indies.

Tetrapturus amplus Poey, Memorias, II, 1861, 243, Habana.

2061. *Makaira marlina* Jordan and Evermann. *Giant black marlin*.

Southern California, south to Cape San Lucas.

Makaira marlina Jordan and Evermann, Occ. Paper No. 12, Calif. Acad. Sci., Sept. 30, 1926, 59, pl. 17, off Cape San Lucas, Lower California.

2062. *Makaira mitsukurii* (Jordan and Snyder). *Marlinspike fish; Barred marlin; Makajiki or true spearfish of Japan*.

Coasts of Japan; Hawaii; southern California; abundant off Santa Catalina.

?*Tetrapturus indicus* Cuvier and Valenciennes, Hist. Nat. Poiss., VIII, 1831, 286, Sumatra, on a figure by Banks.

?*Histiophorus audax* Philippi.

Tetrapturus mitsukurii Jordan and Snyder, Jour., Coll. Sci. Imp. Univ. Tokyo, XV, pt. 2, 1901, 304, Pl. XVI, fig. 5, fishwell at Misaki.

2063. *Makaira holei* Jordan and Evermann. *Striped marlin*.

Off Pacific coast of Mexico, north to Cape San Lucas.

Makaira holei Jordan and Evermann, Occ. Papers No. 12, Calif. Acad. Sci., Sept. 30, 1926, 63, pl. 19, fig. 1, off Cape San Lucas, Lower California.

Family 167. XIPHIIDÆ. Swordfishes

Genus 700. XIPHIAS Linnæus. *Swordfishes*.*Xiphias* Linnæus, Syst. Nat., Ed. X, 1758, 248 (*X. gladius* Linnæus).*Phæthomichthys* Nichols, Amer. Mus. Nov., XIX, I, 1923 (*Phæthomichthys tuberculatus* Nichols; a young swordfish).2064. *Xiphias gladius* Linnæus. *Common swordfish; Broadbill; Espada; Espadón emperador.*

Open sea, Atlantic and Pacific Oceans, on both coasts; Cuba to Cape Breton and Newfoundland Banks; Pacific off Santa Barbara Islands, Hawaii, Japan, San Diego

Xiphias gladius Linnæus, Syst. Nat., Ed. X, 1758, 248, Europe.*Xiphias rondeletii* Leach, in Wern. Mem., II, 1818, 58, pl. 2, fig. 1, Firth of Forth.*Xiphias imperator* Schneider, ed. Bloch, Syst. Ichth., 1801, 93, Pl. XXI, Mediterranean, after an erroneous figure of Duhamal.*Phæthomichthys tuberculatus* Nichols, Amer. Mus. Nat. Hist. Novitates, XIX, pl. 1, Oct. 19, 1923; very young of *X. gladius* L.

Series LUVARIFORMES

Family 168. LUVARIDÆ

Genus 701. LUVARUS Rafinesque.

Luvarus Rafinesque, Caratteri, 1810, 22 (*L. imperialis* Rafinesque).*Diana* Risso, Europe Méridionale, 1826, 267 (*D. semilunata* Risso).*Ausonia* Risso, op. cit., 341 (*A. cuvieri* Risso).*Proctostegus* Nardo, Diaro, Chem. et Hist. Nat. Ticino, I, 1827, 18, 42 (*P. proctostegus* Nardo).*Astrodermus* (Bonelli) Cuvier, Règne Anim., ed. 2, II, 1829, about 215 (*A. guttatus* Bonelli MS).*Scafaria* Gistel, Thierreich, VIII, 1848 (*Ausonia cuvieri* Risso).2065. *Luvarus imperialis* Rafinesque.

Open sea; once taken at San Pedro, Calif. (W. F. Thompson).

Luvarus imperialis Rafinesque, Caratteri, 1810, 22.*Diana semilunata* Risso, Europe Mérid., 1826, 267.*Ausonia cuvieri* Risso, loc. cit., 341.*Proctostegus proctostegus* Nardo, Diaro, Chem. et Hist. Nat. Ticino, I, 1827, 18, 42.*Astrodermus guttatus* Bonelli, in Cuvier, Règne Anim., ed. 2, II, 1829, 215 ca.*Scafaria* Gistel, Thierreich, VIII, 1848.

Series CORYPHÆNIFORMES

Family 169. CORYPHÆNIDÆ. Dolphins; Dorados

Genus 702. CORYPHÆNA Linnæus. *Dorados*.*Coryphæna* Linnæus, Syst. Nat., Ed. X, 1758, 261 (*C. hippurus* L.).*Lampugus* Cuvier and Valenciennes, Hist. Nat. Poiss., IX, 1833, 317 (*Scomber pelagicus* L.; female).2066. *Coryphæna hippurus* Linnæus. *Common dolphin; Dorado; Dourade.*

Pelagic to Cape Cod and northward, South Carolina to Texas; also throughout the mid-Pacific.

Coryphæna hippurus Linnæus, Syst. Nat., ed. X, 1758, 261, open seas.*Scomber pelagicus* Linnæus, loc. cit., 299, no locality.*Coryphæna fasciolata* Pallas, Spicil. Zool., VIII, 1770, 23, Amboina.*Coryphæna imperialis* Rafinesque, Caratteri, 1810, 33, Sicily.*Coryphæna immaculata* Agassiz in Spix, Pisc. Brasil., 1829, 111, pl. 56, Atlantic, off Brazil.*Coryphæna marcgravi* Cuvier and Valenciennes, Hist. Nat. Poiss., IX, 1833, 223 (301), America.*Coryphæna suerii* Cuvier and Valenciennes, loc. cit., 224 (302), Philadelphia.*Coryphæna dorado* Cuvier and Valenciennes, loc. cit., 225 (303), Brazil.*Coryphæna dolfyn* Cuvier and Valenciennes, loc. cit., 226 (305), Antilles.

- Coryphæna virgata* Cuvier and Valenciennes, loc. cit., 228 (308), Martinique.
Coryphæna argyrurus Cuvier and Valenciennes, loc. cit., 232 (314), Sea of Coromandel.
Coryphæna blainvillæ Cuvier and Valenciennes, loc. cit., 233 (315), seas of India.
Lampugus sculcus Cuvier and Valenciennes, loc. cit., 240 (323), Sicily.
Coryphæna scomberoides Cuvier and Valenciennes, loc. cit., 234 (315), South Sea.
Ectenias brunneus Jordan and Thompson, Mem. Carnegie Mus., VI, 1914, 241, Japan; young.

2067. *Coryphæna equisetis* Linnæus. *Small dolphin*.
 Open Atlantic and Pacific; rare in the West Indies. Recently taken in some numbers off coast of southern California.
Coryphæna equisetis Linnæus, Syst. Nat., Ed. X, 1758, 261 (misprinted *equiselis*), high seas; after Osbeck.
Coryphæna aurata Rafinesque, Caratteri, 1810, 33, Sicily.
Coryphæna lessonæ Cuvier and Valenciennes, Hist. Nat. Poiss., IX, 1833, 228 (307), India.
Lampugus punctulatus Cuvier and Valenciennes, loc. cit., 242 (429), Atlantic at the Equator.
Lampugus neapolitanus Cuvier and Valenciennes, loc. cit., 241 (325), Naples; after Bloch.
Coryphæna azorica Cuvier and Valenciennes, loc. cit., 227 (306), Azores.

Series BRAMIFORMES

Family 170. BRAMIDÆ. Sea breams

- Genus 703. *BRAMA* Bloch and Schneider. *Pomfret*.
Brama Bloch and Schneider, Ed. Bloch, Syst. Ichth., 1801, 98 (*Sparus raii* Bloch).
Lepodus Rafinesque, Caratteri, 1810, 54 (*L. saragus* Rafinesque = *Sparus raii* Bloch).

2068. *Brama raii* (Bloch). *Sea bream; Pomfret; Catagnole; Rondanin*.
 Open seas; Europe; Faroe Islands; Bermuda; Grand Banks; Pacific coast from Santa Catalina to Puget Sound; Japan; reported recently from Cape Flattery.
Brama marina cauda forcipata Ray, Syn. Meth. Piscium, 1713, 115, Middelburg.
Sparus raii Bloch, Naturgesch. Ausl. Fische, V, 1791, 95; after Ray, etc.
Sparus castaneola Shaw, Gen. Zool., IV, 1803, 424; after Lacépède.
Sparus niger Turton, British Fauna, 1807, 98, Swansea.
Lepodus saragus Rafinesque, Caratteri, etc., 1810, 54, Palermo.
Brama dussumieri Cuvier and Valenciennes, Hist. Nat. Poiss., VII, 1831, 219 (294), Indian Sea, long. 85° E.
 ?*Brama orcuti* Cuvier and Valenciennes, loc. cit., 220 (295), Indian Sea, long. 85° E.
 ?*Brama chilensis* Gay, Hist. Chile, Peces, 1843, 218, Chile.

2069. *Brama agassizii* Poey.
 Cuba; rare.
Brama agassizii Poey, Memorias, II, 1861, 204, Cuba.

2070. *Brama brevoorti* Poey.
 Cuba; rare.
Brama brevoorti Poey, Memorias, II, 1861, 206, Cuba.

- Genus 704. *TARACTES* Lowe.
Taractes Lowe, Proc. Zool. Soc. Lond., 1843, 82 (*T. asper* Lowe; probably young of *Taractes longipinnis*).
Argo Doderlein, Fische Japans, II, Denkschr. Acad. Wiss. Wien, XLVIII, 1883, 34 (*Argo steindachneri* Doderlein); name preoccupied.

2071. *Taractes saussurii* (Lunel).
 Habana.
Brama saussurii Lunel, Rêvue du Genre Brama, in Mém. Soc. Phys. Hist. Nat. Genève, XVIII, 1865, 185, tab. 2, Cuba.

Family 171. STEINEGERIIDÆ

Genus 705. STEINEGERIA Jordan and Evermann.

Steinegeria Jordan and Evermann, Proc. U. S. Nat. Mus., IX, 1886, 467 (*S. rubescens* Jordan and Evermann).

2072. *Steinegeria rubescens* Jordan and Evermann.

Gulf of Mexico in deep water; one specimen known.

Steinegeria rubescens Jordan and Evermann, Proc. U. S. Nat. Mus., IX, 1886, 467, snapper banks off Pensacola, Fla.

Family 172. PTERACLIDÆ

Genus 706. PTERACLIS Gronow.

Pteraclis Gronow, Acta Helvetica, VII, 1772, 43 (*Coryphæna velifera* Pallas).

Pteridium Scopoli, Introd. Hist. Nat., 1777, 454 (*Coryphæna velifera* Pallas).

Oligopodus Lacépède, Hist. Nat. Poiss., II, 1800, 511 (*Coryphæna velifera* Pallas).

Pteraclidus Rafinesque, Analyse de la Nat., 1815, 82, substitute for *Oligopodus* Lacépède.

Oligopodes Risso, in Cuvier, Règne Anim., ed. 1, 1817, 328 (*Oligopode noir* Risso).

Oligopus Risso, Europe Mérid., 1826, 105, substitute for *Oligopodus*.

2073. *Pteraclis carolinus* Cuvier and Valenciennes.

Coast of South Carolina.

Pteraclis carolinus Cuvier and Valenciennes, Hist. Nat. Poiss., IX, 1833, 272 (368), off coast South Carolina.

?*Pteraclis trichipterus* Cuvier and Valenciennes, loc. cit., 272 (367), locality unknown.

Genus 707. CENTROPHOLIS Hilgendorf.

Centropholis Hilgendorf, Sitzber. Naturf. Freunde, Berlin, 1878, 135 (*C. petersi* Hilgendorf).

2074. *Centropholis goodei* Jordan.

Gulf Stream.

Pteraclis carolinus Goode and Bean, Oceanic Ichth., 212, Pl. LIX, fig. 218, Gulf Stream; not of Linnæus.

Centropholis goodei Jordan, Ann. Carnegie Mus., IX, 1915, 333, Gulf Stream.

Series STROMATEIFORMES

Family 173. STROMATEIDÆ. *Fiatolas*

Genus 708. PEPRILUS Cuvier.

Rhombus Lacépède, Hist. Nat. Poiss., II, 1800, 321 (*Chætodon alepidotus* Linnæus); preoccupied in mollusks.

Peprilus Cuvier, Règne Anim., ed. 2, II, 1829, 213 (*Stromateus longipinnis* Mitchell = *Stromateus paru* Linnæus).

2075. *Peprilus paru* (Linnæus). *Harvestfish*; *Poppyfish*; *Rudderfish*.

South Atlantic coast of United States; West Indies; Cape Cod to Jamaica and Brazil.

Stromateus paru Linnæus, Syst. Nat., Ed. X, 1758, 248, Jamaica; based on Sloane.

Chætodon alepidotus Linnæus, op. cit., Ed. XII, 1766, 460, Charleston, S. C.

?*Sternoptyx gardenii* Bloch and Schneider, Syst. Ichth., 1801, 494, Carolinas; after Linnæus.

Stromateus longipinnis Mitchell, Trans. Lit. Phil. Soc. N. Y., I, 1815, 366, New York Bay.

Genus 709. PALOMETA Jordan and Evermann.

Palometa Jordan and Evermann, Fishes North and Mid. Amer., 1896, 966 (*Stromateus palometa* Jordan and Bollman).

2076. *Palometa simillima* (Ayres). *California pampano*.

Pacific coast of United States, Puget Sound to San Diego.

Poronotus simillimus Ayres, Proc. Calif. Acad. Nat. Sci., 1st ser., II, 1860, 84, San Francisco.

2077. *Palometa media* (Peters). *Palometa*.
Pacific coast of North America, Mazatlan to Panama.
Stromateus medius Peters, Berl. Monatsb., 1869, 707, Mazatlan, Mexico.
2078. *Palometa palometa* (Jordan and Bollman).
Pacific Ocean, off Colombia.
Stromateus palometa Jordan and Bollman, Proc. U. S. Nat. Mus., XII, 1889, 156, off coast of Colombia, lat. 8° 16' 30'' N., long. 79° 37' 45'' W., at Albatross station 2804.
- * 2079. *Palometa snyderi* (Gilbert and Starks).
Panama,
Peprilus snyderi Gilbert and Starks, Mem. Calif. Acad. Sci., IV, 1904, 87, Panama.
- Genus 710. *PORONOTUS* Gill.
Poronotus Gill, Cat. Fish. E. Coast N. Amer., Sup. to Proc. Acad. Nat. Sci. Phila., XIII, 1861, 35 (*Stromateus triacanthus* Peck).
2080. *Poronotus triacanthus* (Peck). *Dollarfish*; *Harvestfish*; *Butterfish*; *Lafayette*.
Nova Scotia to Florida; common.
Stromateus triacanthus Peck, Mem. Amer. Acad., II, 1800, pt. 2, 48, pl. 2, fig. 2, Piscataqua River, N. H.
Stromateus cryptosus Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 365, New York Bay.
- Genus 711. *EUCROTUS* Bean (B. A.).
Eucrotus Bean, Proc. Biol. Soc. Wash., XXV, 1912, 123 (*E. ventralis* Bean).
2081. *Eucrotus ventralis* Bean.
Bermudas.
Eucrotus ventralis Bean, Proc. Biol. Soc. Wash., XXV, 1912, 125, Bermudas.

Family 174. CENTROLOPHIDÆ. Rudderfishes

- Genus 712. *CENTROLOPHUS* Lacépède. *Black ruffs*.
Centrolophus Lacépède, Hist. Nat. Poiss., IV, 1803, 441 (*Perca nigra* Gmelin=*Coryphæna pompilus* L.).
Acentrolophus Nardo, Prodromus. Adriat. Ichth. Giorn. Fisica di Pavia, sp. 62, 1827, (*A. maculatus* Nardo=*Centrolophus niger* Lacépède, the name *Centrolophus* deemed inappropriate).
Gymnocephalus Cocco, Nuov. Ann. Sci. Nat., II, 1838, 26 (*G. messinensis* Cocco); name preoccupied.
Pompilus Lowe, Suppl. Fish Madeira, Proc. Zool. Soc. London, VII, 1839, 81 (*Coryphæna pompilus* L.).
2082. *Centrolophus niger* (Gmelin). *Blackfish*; *Black ruffe*; *Borlase*.
Coasts of southern Europe; once taken at Dennis, Mass.
Perca nigra Gmelin, Syst. Nat., 1788, 1321, Cornwall.
Centrolophus liparis Risso, Eur. Mérid., III, 1826, 337, Nice, Italy.
Centrolophus morio Lacépède in Cuvier and Valenciennes, Hist. Nat. Poiss., IX, 1833, 254 (342), Mediterranean.
Centrolophus pompilus Cuvier and Valenciennes, loc. cit., 247 (334), pl. 269; not of Linnaeus.
Acentrolophus maculosus Nardo, Prodr. Ichth. Adriat., No. 62, Isis, 1827, Adriatic.
Gymnocephalus messinensis Cocco, Nuovi Ann. Sci. Nat., II, 1838, 26, Messina.
- Genus 713. *PALINURICHTHYS* Bleeker. *Black rudderfishes*.
Palinurus DeKay, N. Y. Fauna: Fishes, 1842 (*Coryphæna perciformis* Mitchell); name preoccupied in Crustacea.
Palinurichthys Bleeker, Enum. Spec. Pisc. Arch. Ind., in Acta Soc. S. Indo-Neerl., VII, November, 1859, 22 (*Coryphæna perciformis*, Mitchell).
Palinurichthys Gill, Proc. Acad. Nat. Sci. Phila., XII, January, 1860, 20 (*Coryphæna perciformis* Mitchell).
Pammelas Günther, Cat., II, June, 1860, 485 (*Coryphæna perciformis* Mitchell).

2083. *Palinurichthys perciformis* (Mitchill). *Rudderfish, Logfish; Snipnose mullet; Black rudderfish*
Atlantic coast of North America from Cape Hatteras to Maine; once taken in Cornwall.
Coryphæna perciformis Mitchill, Amer. Month. Mag., II, 1818, 244, New York Harbor.
Pimalepterus cornubiensis Cornish Zoologist, IX, 1874, 4255, Penzance, Cornwall (a stray specimen floated across in a fish box).

Genus 714. *SCHEDOPHILUS* Cocco.

Schedophilus Cocco, Giorn. Innom. Messina, Ann., III, 1834, No. 7, 57, (*S. medusophagus* Cocco).
Crius Valenciennes, Ichth. Îles Canaries, II, 1844, 43 (*Crius bertheloti* Valenciennes = *Schedophilus medusophagus* Cocco).

2084. *Schedophilus heathi* Gilbert.

Monterey Bay.

Schedophilus heathii Gilbert, Proc. Calif. Acad. Sci., ser. 3, Zool., III, 1904, 260, Pl. XXVI, Pacific Grove, Calif.

Genus 715. *ICICHTHYS* Jordan and Gilbert.

Ichthys Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 305 (*I. lockingtoni* Jordan and Gilbert).

2085. *Ichthys lockingtoni* Jordan and Gilbert.

Off California, in deep water; a surface swimmer, hovering under jelly-fishes; known from off Monterey and San Francisco.

Ichthys lockingtoni Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 305, off San Francisco.

Family 175. *NOMEIDÆ*. Man-of-war fishes

Genus 716. *NOMEUS* Cuvier.

Nomeus Cuvier, Règne Anim., ed. 1, II, 1817, 315 (*Gobius gronovii* Gmelin).

2086. *Nomeus gronovii* (Gmelin). *Portuguese man-of-war fish; Harder; Pastor.*

Tropical parts of the Atlantic and Indian Oceans; Sargasso Sea; Florida; Bermuda; Woods Hole, Mass.; rocky pools at Panama.

Gobius gronovii Gmelin, Syst. Nat., Ed. XIII, 1788, 1205, tropical America; after Gronow.

Eleotris mauritii Bloch and Schneider, Syst. Ichth., 1801, 66, Brazil.

Nomeus maculosus Bennett, Proc. Comm. Zool. Soc., I, 1831, 146, East Indies.

Nomeus oxyurus Poey, Memorias, II, 1861, 236, Habana.

Genus 717. *PSENES* Cuvier and Valenciennes.

Psenes Cuvier and Valenciennes, Hist. Nat. Poiss., IX, 1833, 193 (259), (*P. cyanophrys* Cuvier and Valenciennes).

2087. *Psenes cyanophrys* Cuvier and Valenciennes.

Open sea; Atlantic, Pacific, and Indian Oceans; Jamaica and Martinique.

Psenes cyanophrys Cuvier and Valenciennes, Hist. Nat. Poiss., IX, 1833, 193 260, pl. 265, New Ireland.

Psenes javanicus Cuvier and Valenciennes, loc. cit., 196 (264), Batavia.

Psenes auratus Cuvier and Valenciennes, loc. cit., 197 (264), Gulf of Bengal.

Psenes fuscus Guichenot, Mem. Soc. Sci. Nat. Cherbourg, XII, 1866, 138, Madagascar.

Cubiceps multiradiatus Günther, Proc. Zool. Soc. Lond., 1871, 661, pl. 61, Manado.

2088. *Psenes maculatus* Lütken.

Open Atlantic.

Psenes maculatus Lütken, Spolia Atlantica, 1880, 110, open Atlantic, lat. 39° N., long. 25° S. and between 34° and 27° W. in 600 to 700 fathoms.

2089. *Psenes regulus* Poey.

Coasts of Cuba.

Psenes regulus Poey, Synopsis, 1868, 375, Cuba.

2090. *Psenes pellucidus* Lutken.
Gulf Stream at 32° 24' N., 76° 55' W., in 528 fathoms.
Psenes pellucidus Lutken, Spolia Atlantica, 1880, 516 (108), with fig., Strait of Surabaja.
2091. *Psenes edwardsii* Eigenmann.
Off Rhode Island.
Psenes edwardsii Eigenmann, Bull. U. S. Fish Com., XXI, 1901 (1902), 35, fig.; taken from under a medusa, 30 miles south of Newport, R. I.
2092. *Psenes chapmani* Fowler.
Open Atlantic, Cape Verde Islands, northwest of the Lesser Antilles.
Psenes chapmani Fowler, Proc. Acad. Nat. Sci. Phila., LVIII, 1906, 120; open Atlantic, lat. 24° 21' N, long. 34° 32' W.
2093. *Psenes pacificus* Meek and Hildebrand.
Panama.
Psenes pacificus Meek and Hildebrand, Field Mus. Nat. Hist., Zool., XV, 1925, 409, Chame Point, Panama.

Family 176. TETRAGONURIDÆ. Squaretails

Genus 718. TETRAGONURUS Risso.

Tetragonurus Risso, Ichth. Nice, 1810, 247 (*T. cuvieri* Risso).
Ctenodax Macleay, Proc. Linn. Soc. New South Wales, 1885, 716 (*C. williamsoni* Macleay).

2094. *Tetragonurus cuvieri* Risso. *Squaretail*; *Escolar de natura*; *Courpata*; *Sea raven*.
Open seas; Nice; Toulon and Marseilles; Madeira; once taken off Santa Catalina Island, Calif. (W. F. Thompson), and once at Woods Hole, Mass.; these possibly different species.
Tetragonurus cuvieri Risso, Ichth. Nice, 1810, 347, Nice.
Tetragonurus atlanticus Lowe, Fishes Madeira, pt. 5, 1860 (1843), 129, Pl. XIX, Madeira.

Family 177. ICOSTEIDÆ. Ragfishes

Genus 719. ICOSTEUS Lockington.

Icosteus Lockington, Proc. U. S. Nat. Mus., III, 1880, 63 (*I. ænigmaticus* Lockington).
Schedophilopsis Steindachner, Ichth. Beitr., XI, 1881, 4 (*S. spinosus* Steindachner=*Icosteus ænigmaticus* Lockington).

2095. *Icosteus ænigmaticus* Lockington. *Ragfish*.
Open sea off the coasts of California, Oregon, and Washington; scarce.
Icosteus ænigmaticus Lockington, Proc. U. S. Nat. Mus., III, 1880, 63, off San Francisco.
Schedophilopsis spinosus Steindachner, Ichth. Beitr., XI, 1881, 4, with figure, off San Francisco.

Family 178. ACROTIDÆ

Genus 720. ACROTUS Bean.

Acrotus Bean, Proc. U. S. Nat. Mus., X, 1887, 631 (*A. willoughbyi* Bean).

2096. *Acrotus willoughbyi* Bean.
Off coast of Washington, Whitby Island, Puget Sound, south to San Pedro, Calif. (W. F. Thompson), in rather deep water.
Acrotus willoughbyi Bean, Proc. U. S. Nat. Mus., X, 1887, 631, Quinault Agency, Wash.

Family 179. CARANGIDÆ. Cavallas; Pampanos

The *Carangidæ*, as heretofore understood, may be naturally divided into two families, the *Seriolidæ* (*Seriola*, *Elagates*, *Naucratus*, etc.) differing strongly in lacking the bony arch behind the abdominal cavity, this being made up of enlarged and ankylosed hæmals, its character somewhat different in different genera but developed in all *Carangidæ* in the narrow sense.

- Genus 721. DECAPTERUS** Bleeker. *Mackerel scads*.
Decapterus Bleeker, Naturk. Tijdsch., VIII, 1855, 417 (*Caranx kurra* Bleeker).
Eustomatodus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 261 (*Decapterus kurroides* Bleeker).
Gymneipignathus Gill, loc. cit., 261 (*Decapterus macrosoma* Bleeker).
Evepigymnus Gill, loc. cit., 261 (*Decapterus hypodus* Gill).
- 2097. *Decapterus punctatus*** (Agassiz). *Scad; Round robin; Cigarfish; Quiaquia; Dotted scad*.
 Cape Cod to Brazil, coasts of Florida and the West Indies.
Caranx punctatus Agassiz, in Spix, Pisc. Brasil., 1829, 108, pl. 56a, fig. 2, Brazil.
Caranx aureus Risso, in Cuvier and Valenciennes, Hist. Nat. Poiss., IX, 1833, 25 (33), Mediterranean.
- 2098. *Decapterus sanctæ-helenæ*** (Cuvier and Valenciennes).
 Tropical Atlantic; Cuba.
Caranx sanctæ-helenæ Cuvier and Valenciennes, Hist. Nat. Poiss., IX, 1833, 28 (37), St. Helena.
- 2099. *Decapterus hypodus*** Gill.
 Cape San Lucas, Lower California.
Decapterus hypodus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 262, Cape San Lucas, Lower California.
- 2100. *Decapterus macarellus*** (Cuvier and Valenciennes). *Mackerel scad; Antonino; Cigarfish*.
 West Indies, northward to Cape Cod.
Caranx macarellus Cuvier and Valenciennes, Hist. Nat. Poiss., IX, 1833, 30 (40), Martinique.
- Genus 722. TRACHURUS** Rafinesque. *Saurels*.
Trachurus Rafinesque, Caratteri, 1810, 41 (*Scomber trachurus* Linnæus).
- 2101. *Trachurus symmetricus*** (Ayres). *Horse mackerel*.
 Coast of California.
Caranx symmetricus Ayres, Proc. Calif. Acad. Nat. Sci., I, 1855, 62, Bay of San Francisco.
- 2102. *Trachurus trachurus*** (Linnæus). *Saurel; Gascon*.
 North Atlantic, chiefly on the northern coast of Europe, south to Spain and Naples; Newport, R. I.; Pensacola.
Scomber trachurus Linnæus, Syst. Nat., Ed. X, 1758, 298, Mediterranean.
 ?*Caranxomorus plumieiranus* Lacépède, Hist. Nat. Poiss., III, 64, pl. 11, scarcely identifiable, from a figure by Plumier, supposed to have been made in Martinique.
Caranx semispinosus Nilsson, Prodr. Ichthyol. Scand., 1832, 84, Scandinavia; the northern form usually called *trachurus*, the valid name for the European form.
Trachurus europæus Gronow, Cat., Ed. Gray, 1854, 125, seas of Europe.
Trachurus linnæi Malm, Bohusläns Fauna, 421, Bohuslän, Sweden.
- 2103. *Trachurus japonicus*** (Schlegel).
 Coast of Japan, east of Lower California, the Mexican specimens few and not surely identified; may be *T. nova-zealandica* Richardson.
Caranx trachurus japonicus Schlegel, Faun. Japon., Poiss., 1850, 109, pl. 59, fig. 1, Japan.
- 2104. *Trachurus lathami*** Nichols.
 Coast of Long Island (a stray from the Gulf Stream).
Trachurus lathami Nichols, Bull. Amer. Mus. Nat. Hist., XLII, 1920, 479, Long Island.
- Genus 723. TRACHUROPS**⁴⁸ Gill.
Trachurops Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 238, 261, 431 (*Scomber crumenophthalmus* Bloch).

⁴⁸ The genus *Selar* Bleeker was based on four species, the first named being *Caranx hasselti*, which is a species of the modern genus *Atule* Jordan and Jordan. It was first restricted to *Scomber boops* Bleeker, a species of *Trachurops*; but this restriction can not stand as *boops* was not mentioned by Bleeker in connection with *Selar*: *Caranx hasselti* = *affinis* of the south Pacific must therefore be the type of *Selar*.

2105. *Trachurops crumenophthalma* (Bloch). *Goggler*; *Big-eyed scad*; *Goggle-eye jack*; *Chucharro*; *Horse-eyed jack*.
Atlantic coast of the United States, Central America, South America, and Africa; West Indies; probably not in the Pacific.
Scomber crumenophthalmus Bloch, *Naturgeschich. Ausl. Fische*, VII, 1793, 77, Acara in Guinea.
Scomber plumieri Bloch, loc. cit., 79, Antilles.
Scomber balantophthalmus Bloch and Schneider, *Syst. Ichth.*, 1801, 29, Guinea.
Caranx macrophthalmus Agassiz, Spix, *Pisc. Brasil.*, 1829, 107, Brazil.
2106. *Trachurops brachychira* Gill. *Akule*; *Atule*.
Pacific Ocean, north to Panama, and the Gulf of California and Hawaii.
Trachurops brachychirus Gill, *Proc. Acad. Nat. Sci. Phila.*, XIV, 1862, 261, Cape San Lucas.
- Genus 724. **HEMICARANX** Bleeker.
Alepes Swainson, *Glassn. Anim.*, II, 1839, 248 (*Alepes melanoptera* Swainson); identification uncertain.
Hemicaranx Bleeker, *Vesl. Kon. Ak. Wet.*, XIV, 1862, 135 (*H. marginatus* Bleeker).
Carangops Gill, *Proc. Acad. Nat. Sci. Phila.*, XIV, 1862, 238 (*Caranx heteropygus* Poey).
2107. *Hemicaranx amblyrhynchus* (Cuvier and Valenciennes).
Cape Hatteras to Brazil; West Indies; Carolina and Florida.
Caranx amblyrhynchus Cuvier and Valenciennes, *Hist. Nat. Poiss.*, IX, 1833, 76 (100), pl. 248, Brazil.
Caranx heteropygus Poey, *Memorias*, II, 1861, 344, Cuba.
2108. *Hemicaranx falcatus* (Holbrook).
Charleston, S. C.
Caranx falcatus Holbrook, *Ichth. South Carolina*, 1855, 92, pl. 13, fig. 2, Charleston, S. C.
2109. *Hemicaranx atrimanus* (Jordan and Gilbert).
Pacific coast of tropical America; Panama.
Caranx atrimanus Jordan and Gilbert, *Bull. U. S. Fish Com.*, I, 1881, 308, Panama.
2110. *Hemicaranx furthii* (Steindachner).
Panama.
Caranx fürthii Steindachner, *Ichth. Beitr.*, IV, 1875, 12, Panama.
2111. *Hemicaranx leucurus* (Günther).
Pacific coast of tropical America; Panama.
Caranx leucurus Günther, *Proc. Zool. Soc. Lond.*, 1864, 24, Panama.
2112. *Hemicaranx zelotes* Gilbert.
Panama.
Hemicaranx zelotes Gilbert, in Jordan and Evermann, *Fishes North and Mid. Amer.*, 1898, 2845, Panama.
2113. *Hemicaranx rhomboides* Meek and Hildebrand.
Atlantic coast of Isthmus of Panama.
Hemicaranx rhomboides Meek and Hildebrand, *Field Mus. Nat. Hist.*, Zool., XV, 1925, 345, Fox Bay, Colon, Panama.
- Genus 725. **ELAPHOTOXON**⁴⁸ Fowler.
Elaphotoxon Fowler, *Proc. Acad. Nat. Sci. Phila.*, LVII, 1905, 76 (*Scomber ruber* Bloch).
2114. *Elaphotoxon ruber* (Bloch). *Cibi mancho*; *Carbonero*; *Cibi*; *Green jack*.
West Indies and coast of the Carolinas.
Scomber ruber Bloch, *Naturgeschich. Ausl. Fische*, VII, 1793, 75, St. Croix.
Caranx blochii Cuvier and Valenciennes, *Hist. Nat. Poiss.*, IX, 1833, 52 (69), St. Croix.
Caranx iridinus Poey, *Memorias*, II, 1861, 226, Cuba.

⁴⁸ This genus is near *Caranx*, the body rather elongate, the teeth in few series, without canines, the arch of the lateral line moderate, more than half the straight part; the dorsal and anal fins anteriorly but little elevated, maxillary not narrowed.

2115. *Elaphotoxon bartholomæi* (Cuvier and Valenciennes). *Yellow jack*;
Cibi amarilla.
West Indies, northward to Florida and North Carolina; Cuba.
Caranx bartholomæi Cuvier and Valenciennes, Hist. Nat. Poiss., IX,
1833, 75 (100), St. Bartholomew.
Caranx cibi Poey, Memorias, II, 1861, 224, Cuba.
Caranx beani Jordan, Proc. U. S. Nat. Mus., III, 1880, 486, Beaufort,
N. C.
- Genus 726. **PARATRACTUS** Gill.
Paratractus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 432 (*Caranx*
pisquetus Cuvier and Valenciennes = *Scomber crysos* Mitchell).
2116. *Paratractus crysos* (Mitchill). *Hardtail*; *Runner*; *Blue runner*; *Jurel*;
Yellow mackerel, *Crevallé*; *Cojnera*
Cape Cod to Brazil
Scomber crysos Mitchell, Trans. Lit. Phil. Soc. N. Y., I, 1815, 424, New
York.
Trachurus squamosus Gronow, Cat. Fishes, ed. Gray, 1854, 125, Carolina.
Caranx pisquetus Cuvier and Valenciennes, Hist. Nat. Poiss., IX, 1833,
73, Santo Domingo; Cuba; Brazil.
2117. *Paratractus caballus* (Günther) *Cocinero*; *Cocinero dorado*; *Jurel*.
Pacific coast of tropical America, San Diego to Panama, recently taken
at San Pedro.
Caranx caballus Günther, Trans. Zool. Soc. Lond., VI, 1868, 431 (Nov.
27), Panama.
Trachurus boops Girard, Pac. R. R. Surv., X, pt. 4, Fishes, 1858, 108,
San Diego; not *Caranx boops* of Cuvier and Valenciennes.
Caranx girardi Steindachner, Ichthyol. Notizen, IX, 1869, 25, Mazatlan.
- Genus 727. **XUREL** Jordan and Evermann.
Xurel Jordan and Evermann, Proc. Calif. Acad. Sci., 4th ser., XVI,
Apr. 27, 1927, 505 (*Caranx vinctus* Jordan and Gilbert).
2118. *Xurel vincta* (Jordan and Gilbert). *Cocinera*.
Pacific coast of Mexico, Mazatlan to Punta Arenas; Gulf of California
to Panama.
Caranx vinctus Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881,
349, Mazatlan, Mexico.
2119. *Xurel fasciatus* (Cuvier and Valenciennes). *Segundo*; *Volantin*.
Cuba; Atlantic coast of Mexico.
? *Caranx fasciatus* Cuvier and Valenciennes, Hist. Nat. Poiss., IX,
1833, 53 (70), east coast of Mexico.
Caranx secundus Poey, Memorias, II, 1861, 223, Cuba.
2120. *Xurel lata* (Agassiz). *Jurel*; *Xurel*, *Horse-eye jack*.
Tropical Atlantic, north to Virginia; probably not in the Pacific, where
it is represented by the near related *Caranx melampygus*.
Caranx latus Agassiz, in Spix, Pisc. Bras., 1829, 105, Brazil.
Caranx lepturus Agassiz, loc. cit., 106, Brazil.
Caranx fallax Cuvier and Valenciennes, Hist. Nat. Poiss., IX, 1833, 71
(95), Antilles; Brazil.
Caranx richardi Holbrook, Ichthyol. South Carolina, 1855, 94, pl. 13,
fig. 1, South Carolina.
Carangus aureus Poey, Enumeratio, 1875, 76, Cuba.
2121. *Xurel medusicola* (Jordan and Starks).
Pacific coast of Mexico, south to Panama.
Caranx medusicola Jordan and Starks, in Jordan, Proc. Calif. Acad.
Sci., V, 1895, 430, pl. 34, Mazatlan.
2122. *Xurel marginatus* (Gill).
Pacific Ocean; Mazatlan, Panama, and Hawaii.
Caranx marginatus Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 166,
Panama.
2123. *Xurel melampygus* (Cuvier and Valenciennes). *Ulua*.
Tropical Pacific, east to off-shore islands of Mexico; Hawaii. A very
important food fish.
Caranx melampygus Cuvier and Valenciennes, Hist. Nat. Poiss., IX,
1833, 103, East Indies.

- 2124. *Xurel stellatus*** (Eydoux and Souleyet). *Omilu*.
Pacific Ocean generally; Hawaii; Revillagigedo Islands; with the "Ulua" one of the staple food fishes of the Pacific islands.
Caranx punctatus Cuvier and Valenciennes, Hist. Nat. Poiss., IX, 1833, 38; name preoccupied.
Caranx stellatus Eydoux and Souleyet, Voy. *Bonite*, Zool., I, Poiss., 1840, 167, Hawaiian Islands.
- 2125. *Xurel lugubris*** (Poey). *Tñosa*.
Tropical Atlantic; West Indies.
Caranx lugubris Poey, Memorias, II, 1861, 222, Cuba.
Caranx frontalis Poey, loc. cit., 222, Cuba.
- 2126. *Xurel tenebrosus*** Jordan and Evermann.
South seas; Revillagigedos; Hawaii.
Caranx lugubris Jordan and Evermann, Fishes North and Mid. Amer., 1896, 924, in part; not of Poey, based on examples so listed by Jordan and McGregor, Report U. S. Fish Com., XXIV, 1899, 227, from Clarion Island of the Revillagigedos Group.
Caranx tenebrosus Jordan and Evermann, Proc. Calif. Acad. Sci., 4th Ser., XVI, Nov. 14, 1927, 656, Clarion Island.
- Genus 728. *CARANX* Lacépède.**
Caranx Lacépède, Hist. Nat. Poiss., III, 1802, 57 (*Scomber carangus* Bloch = *Scomber hippos* L., as now usually restricted) Species with the breast naked except for a central patch of scales.
Tricopterus Rafinesque, Caratteri, 1810, 41 (*Scomber carangus* Bloch = *Scomber hippos* Linnaeus), as restricted.
Carangichthys Bleeker, Nat. Tijdschr. Neder. Indie, III, 1852, 760 (*C. typus* Bleeker); immature; fish with breast naked; strong teeth present.
- 2127. *Caranx hippos*** (Linnaeus). *Crevallé*; *Toro*; *Horse crevallé*; *Cavalla*; *Jack*; *Jaguagua*; *Yellow caranx*; *Yellow mackerel*.
East coast of tropical America, north to Cape Cod; apparently represented in the Pacific by the closely related *Caranx ignobilis*.
Scomber hippos Linnaeus, Syst. Nat., Ed. XII, 1766, 494, Charleston, S. C.
Scomber carangus Bloch, Naturgeschichte. Ausl. Fische, VII, 1793, 69, Antilles.
Caranx erithrurus Lacépède, Hist. Nat. Poiss., III, 1802, 68, South Carolina.
Caranx daubentonii Lacépède, loc. cit., 72, Martinique.
Caranx antillarum Bennett, Whaling Voyage, II, 1840, 282, West Indies.
Caranx defensor DeKay, N. Y. Fauna: Fishes, 1842, 120, New York.
Carangus esculentus Girard, U. S. Mex. Bound. Surv., 1859, 23, pl. XI, figs. 1-3, Brazos Santiago, Tex.
- 2128. *Caranx ignobilis*** Forskål.
Tropical Pacific, east to offshore islands of Mexico; Hawaii.
Scomber ignobilis Forskål, Descr. Anim., 1775, Red Sea.
Carangus hippoides Jenkins, Bull. U. S. Fish Com., XXII, 1902, 443, fig. 15, Honolulu.
- Genus 729. *GNATHANODON* Bleeker.**
Gnathanodon Bleeker, Verh. Batav. Genootsch., XXIV, Makreele, art. 5, 1851 (1852), pp. 6, 18, 30, 72, etc. (*Scomber speciosus* Forskål).
Hypocaranx Klunzinger, Fische Rothen Meeres, 1884, 92 (*Scomber speciosus* Forskål).
- 2129. *Gnathanodon speciosus*** (Forskål). *Mojarra dorada*.
Tropical parts of the Pacific Ocean; East Indies; Mazatlan to Panama; Hawaii.
Scomber speciosus Forskål, Descr. Anim., 1775, 54, Red Sea.
Scomber rim Forskål, loc. cit., 54, Djidda.
Caranx panamensis Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 166, Panama.
- Genus 730. *CITULA* Cuvier.**
Citula Cuvier, Règne Anim., ed. 1, 1817, 315 (*Scizena armata* Forskål).

2130. *Citula orthogramma* (Jordan and Gilbert).
Revillagigedo Islands; Pacific Islands.
Caranx orthogrammus Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 226, Sulphur Bay, Clarion Island, Revillagigedo Archipelago.
2131. *Citula dorsalis* (Gill). *Pampano*.
Pacific coast of tropical America; Mazatlan; Panama.
Carangoides dorsalis Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 166, Panama.
Caranx otrzynter Jordan and Gilbert, Proc. U. S. Nat. Mus., 1883, 202; new name substituted for *dorsalis* preoccupied in *Caranx*, but not in *Citula*.
- Genus 731. *ALECTIS*⁵⁰ Rafinesque. *Cobblerfishes; Cockfishes*.
Gallus Lacépède, Hist. Nat. Poiss., IV, 1803 (*Zeus gallus* L.); preoccupied in birds.
Alectis Rafinesque, Anal. Nature, 1815, (*Zeus gallus* L.); substitute for *Gallus*, preoccupied.
Blepharis Cuvier, Règne Animal, 1817, 322 (*Zeus ciliaris* Bloch).
Gallichthys Cuvier and Valenciennes, Hist. Nat. Poiss., IX, 1833, 264 (*Zeus gallus* L.); substitute for *Gallus*, preoccupied.
Bleparichthys Gill, Cat. Fish. East Coast U. S., suppl. to Proc. Acad. Nat. Sci. Phila., XIII, 1861, 36; substitute for *Blepharis*.
2132. *Alectis crinitus* (Mitchill). *Threadfish; Cobblerfish; Sunfish; Shoemaker*.
West Indies north to Cape Cod, Florida Keys and Cuba.
Zeus crinitus Mitchill, Amer. Jour. Sci. Arts, XI, 1826, 144, Shoreham, Mass.
Blepharis sutor Cuvier and Valenciennes, Hist. Nat. Poiss., IX, 1833, 120 (161), pl. 253, Caribbean Sea.
Blepharis major Cuvier and Valenciennes, loc. cit., 121 (163), West Indies; Martinique; not *Gallichthys major*, an East Indian species.
Carangoides blepharis Bleeker, Verhand. Batav. Genootsch., XXIV, 1852, Makr. 667, East Indies.
Carangoides gallichthys Bleeker, loc. cit., 668, East Indies.
- Genus 732. *SCYRIS* Cuvier.
Scyris Cuvier, Règne Anim., ed. 2, II, 1829, 209 (*S. indica* Cuvier and Valenciennes).
2133. *Scyris analis* Poey.
Cuba.
Scyris analis Poey, Synopsis, 1868, 369, Cuba.
- Genus 733. *HYNNIS* Cuvier and Valenciennes.
Hynnys Cuvier and Valenciennes, Hist. Nat. Poiss., IX, 1833, 145 (195), pl. 257 (*H. gorensis* Cuvier and Valenciennes).
2134. *Hynnys cubensis* Poey.
Cuba.
Hynnys cubensis Poey, Memorias, II, 1861, 235, Habana.
2135. *Hynnys hopkinsi* Jordan and Starks. *Pampano*.
Puerto Viejo, near Mazatlan, Mexico.
Hynnys hopkinsi Jordan and Starks, in Jordan, Proc. Calif. Acad. Sci., V, 1895, 435, pl. 35, Mazatlan.
- Genus 734. *VOMER* Cuvier and Valenciennes.
Vomer Cuvier and Valenciennes, Hist. Nat. Poiss., IX, 1833, 141 (189), pl. 256 (*V. brownii* Cuvier and Valenciennes=*Zeus setapinnis* Mitchell).
Platysomus Swainson, Nat. Hist. Fish., Amphib., etc., II, 1839, 250 (*Vomer browni* Cuvier and Valenciennes).

⁵⁰ The genera and species allied to *Alectis* have been much mixed from the first. While other possibilities exist, and may be defended, it seems best to adhere to current nomenclature, which, in fact, accords best with the Code.

- 2136. *Vomer setapinnis* (Mitchill).** *Jorobado; Moonfish; Horsefish; Blunt-nosed shiner; Sunfish; Pug-nosed shiner.*
Atlantic coast of America; from Maine to Florida.
Zeus setapinnis Mitchill, Trans. Lit. Phil. Soc. N. Y., 1815, 384, New York.
Vomer brownii Cuvier and Valenciennes, Hist. Nat. Poiss., IX, 1833, 141 (189), pl. 256, New York.
Argyreus unimaculatus Batchelder, Proc. Bost. Soc. Nat. Hist., II, 1845, 78, Maine.
Vomer curtus Cope, Proc. Acad. Nat. Sci. Phila., XXII, 1870, 119, Rhode Island.
- 2137. *Vomer setapinnis cubensis* Nichols.**
Coast of Cuba.
Vomer setapinnis cubensis Nichols, Bull. Amer. Mus. Nat. Hist., XXXVIII, 1918, 672, Cuba.
- 2138. *Vomer dorsalis* Gill.**
West coast of Africa, recorded from the West Indies.
Vomer dorsalis Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 436; after Günther.
Argyreus setipinnis var. B. Günther, Cat., II, 1860, 459, St. Vincent; Cape Verde Islands; West Indies.
Vomer senegalensis Guichenot, Ann. Soc. Linn. Maine et Loire, 1865, 35, Senegal.
Vomer goreensis Guichenot, loc. cit., 37, Gorea.
- 2139. *Vomer spixii* (Swainson).**
West Indies south to Brazil.
Platysomus spixii Swainson, Class. Fishes, etc., II, 1839, 250 and 406, Brazil; after Spix and Agassiz, pl. 37.
Platysomus micropteryx Swainson, loc. cit., 406, Pernambuco.
Vomer sanctæ-marthæ, columbianus, martinicensis, dominicensis, novæboracensis, sanctæ-petri, brasiliensis, cayennensis, and cubæ Guichenot, Ann. Soc. Linn. Maine et Loire, 38 to 44, 1865, localities indicated by names.
- 2140. *Vomer declivifrons* Meek and Hildebrand.**
Cape San Lucas to Peru.
Vomer declivifrons Meek and Hildebrand, Field Mus. Nat. Hist., Zool., XV, 1925, 367, Pl. XXIX, fig. 2, Panama.
- 2141. *Vomer gabonensis* Guichenot.**
West Indies and west coast of Africa.
Vomer gabonensis Guichenot, Ann. Soc. Linn. Maine et Loire, 1865, 42, Gaboon.
- Genus 735. ARGYREIOSUS Lacépède.** *Moonfishes.*
Selene Lacépède, Hist. Nat. Poiss., IV, 1803, 560 (*S. argentea* Lacépède = *Zeus vomer* L.).
Argyreus Lacépède, loc. cit., IV, 1803, 566 (*Zeus vomer* Linnæus).
- 2142. *Argyreus vomer* (Linnæus).** *Moonfish; Jorobado; Lookdown; Horse-head; Hair-finned dory; Hair-finned silverfish; Dollarfish.*
Tropical America, on both coasts; Cape Cod to Brazil; Lower California to Peru.
Zeus vomer Linnæus, Syst. Nat., Ed. X, 1758, 266, America.
Zeus gallus Linnæus, loc. cit., America; after Artedi.
Zeus capillaris Mitchill, Trans. Lit. and Phil. Soc., I, 383, 1815, New York.
Zeus rostratus Mitchill, loc. cit., 384, New York.
Zeus geometricus Mitchill, Amer. Month. Mag., II, 245, 1818, New York.
Argyriosus triacanthus Swainson, Nat. Hist. Classn. Fish., 1839, 250, Brazil.
Argyriosus filamentosus Swainson, loc. cit., 250; after Cuvier and Valenciennes.
Argyriosus setifer Swainson, loc. cit., 407; after Cuvier and Valenciennes.
Argyriosus mauriceii Swainson, loc. cit., 408, Brazil.
Argyriosus mitchilli DeKay, N. Y. Fauna: Fishes, 1842, 126, New York.
- 2143. *Argyreus arstedii* (Lütken).**
Pacific coast, Mazatlan to Panama.
Selene arstedii Lütken, Spolia Atlantica, 1880, 144, Punta Arenas.

2144. *Argyreiosus brevoorti* Gill.

Lower California to Peru.

Argyriosus brevoorti Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 83, Lower California.*Argyreiosus pacificus* Lockington, Proc. Calif. Acad. Sci., first ser., VII, 1876, 84, Magdalena Bay, Lower California.**Genus 736. *CHLOROSCOMBRUS* Girard. *Casabe*.***Chloroscombrus* Girard, Proc. Acad. Nat. Sci. Phila., X, 1858, 168 (*Micropteryx cosmopolita* Agassiz = *Scomber chrysurus* Linnaeus).*Micropteryx* Gunther, not of Agassiz, which is *Seriola***2145. *Chloroscombrus chrysurus* (Linnaeus). *Casabe*; *Bumper*; *Yellowtail*.
Cape Cod to Brazil; common on our South Atlantic coast and in Cuba.
Scomber chrysurus Linnaeus, Syst. Nat., ed. XII, 1766, 494, Charleston, S. C.***Micropteryx cosmopolita* Agassiz, in Spix, Pisc. Bras., 1829, 104, Tab. LIX, Atlantic Ocean.*Scomber latus* Gronow, Cat. Fishes, ed. Gray, 1854, 127, Carolina.*Chloroscombrus caribbaeus* Girard, Mex. Bound. Surv., Zool., 1859, 21, Pl. XI, fig. 6, St. Joseph Island, Tex.**2146. *Chloroscombrus orqueta* Jordan and Gilbert. *Orqueta*; *Xurel de Castilla*.**

Pacific coast of tropical America, Magdalena Bay to Panama.

Chloroscombrus orqueta Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1862, 646, Panama.*Chloroscombrus stirurus* Jordan and Gilbert, loc. cit., VI, 1883, 206, Panama; slip for *C. orqueta* imperfectly corrected proof.**Genus 737. *TRACHINOTUS* Lacépède. *Pámpano*.***Trachinotus* Lacépède, Hist. Nat. Poiss., III, 1802, 79 (*Labrus falcatus* Linnaeus).*Cæsiomorus* Lacépède, loc. cit., 92 (*C. bailloni* Lacépède).*Acanthion* Lacépède, loc. cit., IV, 1803, 499 (*Chætodon rhomboides* Linnaeus).*Baillonus* Rafinesque, Analyse Nature, X, 1815 (*Trachinotus bailloni* Lacépède); substitute for *Cæsiomorus*.*Bothrolæmus* Holbrook, Ichth. South Carolina, 1855, 80 (*Trachinotus pampanus* Cuvier and Valenciennes).*Dohodon* Girard, Proc. Acad. Nat. Sci. Phila., X, 1858, 168 (*Gasterosteus carolinus* Linnaeus).**2147. *Trachinotus palometa* Regan. *Gafftopsail*; *Pámpano*; *Oldwife*; *Palometa*; *Banner pompano*.**

Tropical America, from Virginia to the Caribbean Sea.

Chætodon glaucus Bloch, Ichth., 1787, pl. 210, Martinique; on a figure by Plumier (name preoccupied by *Lichia glauca* L., also a *Trachinotus*).*Trachynotus palometa* Regan, Ann. Mag. Nat. Hist., (7), XII, 1903, 349; substitute for *glaucus* Bloch).**2148. *Trachinotus rhodopus* (Gill). *Pampanito*.**

Pacific coast of tropical America; south to Panama.

Trachynotus rhodopus Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 85, Cape San Lucas.? *Trachynotus nasutus* Gill, loc. cit., 85, Cape San Lucas.*Trachynotus fasciatus* Gill, loc. cit., 86, Panama.*Trachynotus glacoides* Günther, Proc. Zool. Soc. Lond., 1864, 150, San Jose de Guatemala.**2149. *Trachinotus falcatus* (Linnaeus). *Round pampano*; *Palometa*; *Permit* (Indian River) *Spinous dory*; *Ovate pampano*.**

East coast of United States, Cape Cod to Florida.

Labrus falcatus Linnaeus, Syst. Nat., ed. X, 1758, 284, America.*Trachinotus spinosus* DeKay, N. Y. Fauna: Fishes, 1842, 117, pl. 19, fig. 53, New York Harbor.*Trachinotus fuscus* Cuvier and Valenciennes, Hist. Nat. Poiss., VIII, 1831, 302 (410), Brazil.

2150. *Trachinotus rhomboides* (Bloch). *Round pampano*.
West Indies to Brazil.
Chaetodon rhomboides Bloch, Nat. Aûs^l. Fische, III, 1787, 100, Martinique.
2151. *Trachinotus culveri* Jordan and Starks.
Pacific coast of Mexico.
Trachinotus culveri Jordan and Starks, in Jordan, Proc. Calif. Acad. Sci., V, 1895, 439, pl. 36, Astillero at Mazatlan, Mexico.
2152. *Trachinotus kennedyi* Steindachner. *Palometa*.
Magdalena Bay to Panama.
Trachinotus kennedyi Steindachner, Ichth. Beitr., III, 1875, 47, Pl. VII, Magdalena Bay.
2153. *Trachinotus goodei* Jordan and Evermann. *Permit*; *Palometa*; *Great pampano*.
West Indies, north to southern Florida.
Trachinotus goodei Jordan and Evermann, Fishes North and Mid. Amer., 1896, 943, Key West, Fla.
2154. *Trachinotus carolinus* (Linnæus). *Common pampano*; *Pámpano*; *Cobblerfish*; *Butterfish*, *Carolina pampano*.
South Atlantic and Gulf coasts of United States; Cape Cod; West Indies; Brazil. One of our best food fishes.
Gasterosteus carolinus Linnæus, Syst. Nat., ed. XII, 1766, 490, Carolina.
? *Trachinotus argenteus* Cuvier and Valenciennes, Hist. Nat. Poiss., VIII, 1831, 304 (410), New York; Rio Janeiro.
? *Trachinotus cupreus* Cuvier and Valenciennes, loc. cit., 305 (414), Martinique.
Trachinotus pampanus Cuvier and Valenciennes, loc. cit., 305 (415), Brazil; Charleston, S. C.
2155. *Trachinotus paloma* Jordan and Starks.
Cape San Lucas, Mazatlan, San Juan Lagoon.
Trachinotus paloma Jordan and Starks, in Jordan, Proc. Calif. Acad. Sci., V, 1895, 437, Mazatlan, Mexico.
- Genus 738. **ZALOCYS** Jordan and McGregor.
Zalocys Jordan and McGregor (R. C.), Rept. U. S. Fish. Com., XXIV, 1898 (1899), 276 (*Zalocys stilbe* Jordan and McGregor).
- 2156 *Zalocys stilbe* Jordan and McGregor.
Off Pacific coast of Mexico, Revillagigedo Islands.
Zalocys stilbe Jordan and McGregor, Rept. U. S. Fish. Com., XXIV, 1898 (1899), 277, pl. 5, Clarion Island.
- Genus 739. **OLIGOPLITES** Gill. *Leatherjackets*.
Oligoplites Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 166 (*O. occidentalis* Gill).
2157. *Oligoplites saurus* (Bloch and Schneider). *Leatherjacket*; *Leathercoat*; *Runner*; *Zapatero*; *Quiebra*; *Sauteur*.
Both coasts of Central America, and West Indies, north to New York and Lower California
Scomber saurus Bloch and Schneider, ed. Bloch, Syst. Ichth., 1801, 321, Jamaica; after *Saurus argenteus* of Browne.
Centronotus argenteus Lacépède, Hist. Nat. Poiss., III, 1802, 316, equatorial America.
Lichia quiebra Quoy and Gaimard, Voy. Freycinet, Zool., 1824, 365, equatorial America.
Chorinemus saltans Cuvier and Valenciennes, Hist. Nat. Poiss., VIII, 1831, 289 (393), Martinique, Brazil, and San Domingo.
2158. *Oligoplites inornatus* Gill. *Plain leatherjacket*.
Panama.
Oligoplites inornatus Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 166 Panama.
2159. *Oligoplites saliens* (Bloch). *Sauteur*.
West Indies.
Scomber saliens Bloch, Naturgeschichte. Aûs^l. Fische, VII, 1793, 49, Martinique; on a figure by Plumier
Scomberoides saltator Lacépède, Hist. Nat. Poiss., II, 1800, pl. 19, fig. 2.

2160. *Oligoplites palometa* (Cuvier and Valenciennes).
Lake Maracaibo, Venezuela.
Chorinemus palometa Cuvier and Valenciennes, Hist. Nat. Poiss., VIII, 1831, 288 (392), Lake Maracaibo, Venezuela.
2161. *Oligoplites altus* (Günther). *Jurel*; *Monda*.
Pacific coast of tropical America; Panama.
Chorinemus altus Gunther, Trans. Zool. Soc. London, VI, 1869, 433, Panama.
2162. *Oligoplites mundus* Jordan and Starks.
West coast of Mexico; Mazatlan.
Oligoplites mundus Jordan and Starks, in Jordan and Evermann, Check List, 1896, 344, Mazatlan, Mexico (name only); Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2844, San Juan Lagoon, Mexico.
2163. *Oligoplites refulgens* Gilbert and Starks.
Panama.
Oligoplites refulgens Gilbert and Starks, Mem. Calif. Acad. Sci., IV, 1904, 73, Panama.

Family 180. SERIOLIDÆ

Genus 740. NAUCRATES Rafinesque.

- Naucrates* Rafinesque, Caratteri 1810, 44 (*Centronotus conductor* Lacépède=*Gasterosteus ductor* Linnæus).
Centronotus Lacépède, Hist. Nat. Poiss., III, 1802, 311, 51 (*C. conductor* Lacépède).
Xystophorus Richardson, Voy. *Erebus* and *Terror*, 1844, 52, pl. 30, fig. 22 (larval form, no species named).
Naucerus Cuvier and Valenciennes, Hist. Nat. Poiss., IX, 1833, 247 (*N. compressus*, Cuvier and Valenciennes; young of *Naucrates*).
2164. *Naucrates ductor*. (Linnæus). *Pilotfish*; *Romero*.
Atlantic coast from Cape Cod to West Indies.
Gasterosteus ductor Linnæus, Syst. Nat., ed. X, 1758, 295, "in Pelago."
Centronotus conductor Lacépède, Hist. Nat. Poiss., III, 1802, 311, no locality.
Naucrates fanfarus Rafinesque, Caratteri, 1810, 45, Sicily.
Naucrates noveboracensis Cuvier and Valenciennes, Hist. Nat. Poiss., VIII, 1831, 239 (325), New York.
Seriola dussumieri Cuvier and Valenciennes, loc. cit., IX, 1833, 162 (217), Gulf of Bengal.
Seriola succincta Cuvier and Valenciennes, loc. cit., 163 (218), south of St. Helena.
Naucerus compressus Cuvier and Valenciennes, loc. cit., 185 (249), pl. 263, fig. 1, Molucca.
Naucerus abbreviatus Cuvier and Valenciennes, loc. cit., 187 (251), Atlantic Ocean.
Naucerus brachycentrus Cuvier and Valenciennes, loc. cit., 187 (253), Indian Ocean.
Naucerus triacanthus Cuvier and Valenciennes, loc. cit., 188 (253), Atlantic Ocean.
Naucerus annularis Cuvier and Valenciennes, loc. cit., 189 (254), south of St. Helena.
Naucerus lecurus Cuvier and Valenciennes, loc. cit., 189 (255), south of St. Helena.
Naucrates cyanophrys Swainson, Classn. Fishes, II, 1839, 412, Palermo.
Naucrates serratus Swainson, loc. cit., 413, Palermo.
Thynnus pompilus Gronow, Cat. Fishes, 1854, 123, Mediterranean; seas of America and Spain.
Xystophorus Richardson, Voy. *Erebus* and *Terror*, 1844, 52, Palermo.
2165. *Naucrates polysarcus* Fowler.
Pacific coast of Mexico.
Naucrates polysarcus Fowler, Proc. Acad. Nat. Sci. Phila., LVII, 1905, 62, west coast of Mexico.

Genus 741. ELAGATIS Bennett.

Elagatis Bennett, Narrative of Whaling Voyage, II, 1840, 283 (*Seriola bipinnulata* Quoy and Gaimard).

Seriolichthys Bleeker, Nat. Tijdschr. Neder.-Indie, VI, 1854, 196 (*Seriola bipinnulata* Quoy and Gaimard).

Decaptus Poey, Memorias, II, 1861, 391 (*Seriola pinnulata* Poey).

2166. *Elagatis bipinnulatus* (Quoy and Gaimard). Runner; Yellowtail; Skipjack; Shoemaker.

Tropical seas; West Indies; Long Island; Hawaii.

Seriola bipinnulata Quoy and Gaimard, Voy. Uranie, Zool., I, 1824, 363, pl. 61, fig. 3, Keeling Islands.

Seriola pinnulata Poey, Memorias, II, 1861, 233, Habana, Cuba.

Genus 742. SERIOLA Cuvier.

Seriola Cuvier, Règne Animal, ed. 2, II, 1829, 205 (*Caranx dumerili* Risso).

Micropteryx Agassiz, Pisc. Brasil., 1829, 102, type (not named) *Seriola dumerili* Cuvier, substitute for *Seriola*, used in botany.

Zonichthys Swainson, Nat. Hist. Fishes, Amphib., etc., II, 1839, 248 (*Scomber fasciatus* Bloch).

Halatractus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 442 (*Seriola dumerili*, substitute for *Seriola*, used in botany).

Lepidomegas Thominot, Bull. Soc. Philom. Paris, ser. 7, IV, 1880, 173 (*L. muelleri* Thominot).

2167. *Seriola dorsalis* (Gill). Yellowtail; White salmon.

Pacific coast of America from Monterey southward to Mazatlan; abundant about the Santa Barbara Islands.

Halatractus dorsalis Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 84, Cape San Lucas.

2168. *Seriola zonata* (Mitchill). Rudderfish; Shark pilot; Pilotfish; Banded rudderfish; Jackfish; Banded mackerel.

Atlantic coast of the United States from Cape Cod to Cape Hatteras.

Scomber zonatus Mitchill, Trans. Lit. Phil. Soc. N. Y., 1815, 427, New York Bay.

2169. *Seriola carolinensis* Holbrook.

Gulf of Mexico, and on Atlantic coast north to Cape Hatteras.

Seriola carolinensis Holbrook, Ichthyol. South Carolina, 1855, 70, Charleston, S. C.

Seriola stearnsi Goode and Bean, Proc. U. S. Nat. Mus., II, 1879, 48, Pensacola, Fla.

2170. *Seriola lalandi* Cuvier and Valenciennes. Great amberfish; Amber jack; Coronado; Jenny Lind.

New Jersey to Brazil; occasionally to New York.

Seriola lalandi Cuvier and Valenciennes, Hist. Nat. Poiss., IX, 1833, 155 (208), Brazil.

Seriola gigas Poey, Memorias, II, 1861, 227, Cuba.

2171. *Seriola dumerili* (Risso). Amber jack; Coronado.

Mediterranean to West Indies, north to Key West and Pensacola.

Caranx dumerili Risso, Ichthyol. Nice, 1810, 175, pl. 6, fig. 20, Nice.

Trachurus alicolus Rafinesque, Caratteri, 1810, 42, Pl. XI, fig. 2, Sicily.

Trachurus fasciatus Rafinesque, Indice, No. 108, 21 and 53, Sicily; not *Scomber fasciatus* of Bloch.

Seriola proxima Poey, Memorias, II, 1861, 229, Cuba.

Genus 743. ZONICHTHYS Swainson.

Zonichthys Swainson, Nat. Hist. Fish., Amphib., etc., II, 1839, 248 (*Scomber fasciatus* Bloch).

2172. *Zonichthys mazatlanus* (Steindachner).

West coast of Mexico, Mazatlan.

Seriola mazatlanana Steindachner, Ichth. Beitr., V, 1876, 8, Mazatlan, Mexico.

2173. *Zonichthys fasciatus* (Bloch). Madregal; Bonito.

West Indies, north to Charleston, S. C.

Scomber fasciatus Bloch, Nat. Ausl. Fische, VII, 1793, 73, pl. 341, no locality.

Seriola semicoronata Poey, Memorias, II, 1861, 232, Habana.

2174. *Zonichthys rivolianus* Cuvier and Valenciennes.
Mediterranean to Brazil, West Indies, and South Carolina; Florida coast.
Seriola rivoliana Cuvier and Valenciennes, Hist. Nat. Poiss., IX, 1833, 154 (207), the Greek Archipelago.
Seriola bosci Cuvier and Valenciennes, loc. cit., 156 (208), waters of Carolina.
Seriola bonariensis Cuvier and Valenciennes, loc. cit., 157 (211), Buenos Aires.
Seriola coronata Poey, Memorias, II, 1861, 232, Cuba.
2175. *Zonichthys falcatus* (Cuvier and Valenciennes). *Madregal*; *Rock salmon*.
West Indies, north to Florida and the Carolinas.
Seriola falcata Cuvier and Valenciennes, Hist. Nat. Poiss., IX, 1833, 156 (210), Gulf of Mexico.
Seriola dubia Lowe, Proc. Zool. Soc. London, VII, 1839, 80, Madeira.
Seriola declivis Poey, Memorias, II, 1861, 230, Habana.
Seriola ligulata Poey, loc. cit., 231, Cuba.

Family 181. NEMATISTIIDÆ. Peacockfishes; Papagallos

Genus 744. NEMATISTIUS Gill.

- Nematistius* Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 258 (*N. pectoralis* Gill).
Seriolophus Guichenot, Mém. Soc. Nat. Sci. Cherbourg, XIII, 1868, 90 (*Seriolophus carangoides* Guichenot).
2176. *Nematistius pectoralis* Gill. *Per de gallo*; *Papagallo*; *Roosterfish*.
Gulf of California to Panama; generally common.
Nematistius pectoralis Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 259, Cape San Lucas.
Seriolophus carangoides Guichenot, Mém. Soc. Nat. Sci. Cherbourg, XIII, 1868, 90, locality unknown.

Family 182. POMATOMIDÆ. Bluefishes

Genus 745. POMATOMUS Lacépède. Bluefishes.

- Pomatomus* Lacépède, Hist. Nat. Poiss., IV, 1802, 436 (*P. skib* Lacépède).
Lopharis Rafinesque, Caratteri, 1810, 52 (*Perca lophar* Forskål).
Gonenion Rafinesque, loc. cit., 53 (*G. serra* Rafinesque).
Temnodon Cuvier, Règne Animal, ed. I, II, 1817, 346 (*Cheilodipterus heptacanthus* Lacépède).
Sypterus Eichwald, Fauna Caspio-Caucas., 1841 (*Perca lophar* Forskål).
Chromis Gronow, Cat. Fishes, 1854, 149 (*C. epicurorum* Gronow = *Gasterosteus saltatrix* Linnæus); name preoccupied.
Sparactodon Rochebrune, Bull. Soc. Philom. Paris, ser. 7, IV, 1880, 162 (*S. nainal* Rochebrune).
2177. *Pomatomus saltatrix* (Linnæus). *Bluefish*; *Snap mackerel*; *Skipjack*; *Faiback*; *Snapping mackerel*; *Tailor*; *Snapper*; *Horse mackerel*; *Greenfish*; *Skip mackerel*.
Atlantic coast of United States; eastern part of the Mediterranean and South to Australia and Madagascar; locally and irregularly abundant.
Perca saltatrix Linnæus, Syst. Nat., ed. X, I, 1758, 293, Carolinas.
Perca lophar Forskål, Descr. Anim., 1775, 38, Constantinople.
Cheilodipterus heptacanthus Lacépède, Hist. Nat. Poiss., III, 1802, 542, Fort Dauphin, Madagascar.
Pomatomus skib Lacépède, loc. cit., IV, 1802, 436, Carolinas.
Lopharis mediterraneus Rafinesque, Indice, 1810, 17, after Forskål.
Gonenion serra Rafinesque, Caratteri, 1810, 53, Sicily.
Chromis epicurorum Gronow, Cat., ed. Gray, 1854, 149, Carolinas.
Sparactodon nainal De Rochebrune, Bull. Soc. Philom. Paris, 1880, 159, Senegambia.

Family 183. RACHYCENTRIDÆ. The Sergeantfishes

Genus 746. RACHYCENTRON Kaup. Crab-eaters.

Rachycentron Kaup, Isis, XIX, 1826, col 89 (*R. typus* Kaup).

Elacate Cuvier and Valenciennes, Hist. Nat. Poiss., VIII, 1831, 328 (*E. malabarica* Cuvier and Valenciennes).

Mcladerma Swainson, Nat. Hist. Fish., Amphib., etc., II, 1839, 243 (*M. nigerrima* Swainson = *Elacate pondicerriana* Cuvier and Valenciennes).

2178. *Rachycentron canadus* (Linnæus). Sergeantfish; Crab-eater; Bonito; Cobia.

In all warm seas; Atlantic coast north to Cape Cod; also in Japan and the East Indies, if all members of the genus belong to one species.

Gasterosteus canadus Linnæus, Syst. Nat., ed. XII, 1766, 491, Carolinas.

Centronotus gardenii Lacépède, Hist. Nat. Poiss., III, 1802, 357, Carolinas.

Centronotus spinosus Mitchill, Trans. Lit. and Phil. Soc., I, 1815, 490, New York.

?*Elacate pondicerriana* Cuvier and Valenciennes, Hist. Nat. Poiss., VIII, 1831, 241 (329), Pondicherry.

?*Elacate motta* Cuvier and Valenciennes, loc. cit., 244 (332), Orixá.

?*Elacate malabarica* Cuvier and Valenciennes, loc. cit., 244 (332), Malabar.

Elacate atlantica Cuvier and Valenciennes, loc. cit., 245 (334), Brazil.

?*Elacate berrillata* Cuvier and Valenciennes, loc. cit., 248 (338), Molucca.

Elacata falcipinnis Gosse, Nat. Sojourn Jamaica, 1851, 208, Jamaica.

Family 184. BATHYCLUPEIDÆ

Genus 747. BATHYCLUPEA Alcock.

Bathyclupea Alcock, Ann. Mag. Nat. Hist., VIII, 1891, 130 (*B. hoskynii* Alcock).

2179. *Bathyclupea argentea* Goode and Bean.

West Indies, in deep water.

Bathyclupea argentea Goode and Bean, Oceanic Ichth., 1895, 190, off Nevis Island, West Indies, at Blake station 37 in 365 fathoms.

Family 185. PERCIDÆ. Perches

Genus 748. PERCA Linnæus. River perches.

Perca Linnæus, Syst. Nat., ed. X, 1758, 289 (*P. fluviatilis* Linnæus).

Epiplatys Schulze, Jahrsber. Naturw. Ver. Magdeburg, 1889, 209 (*Perca fluviatilis* Linnæus).

2180. *Perca flavescens* (Mitchill). Yellow perch; American perch; Ringed perch; Raccoon perch; Yellow Ned; River perch; Lake perch.

Fresh waters of the eastern United States, chiefly northward and eastward; abundant in the Great Lakes and in coastwise streams from Nova Scotia to North Carolina; common in the tributaries of the upper Mississippi, especially in lakes of Indiana, Michigan, Wisconsin, Iowa, and Minnesota; unknown from central Ohio southward; not known from the Ohio River or the lower Missouri.

Perca americana Schranck, Abh. Privatges. Oberdeutschland, I, 1792, 100, America; name preoccupied in *Morone*.

Morone flavescens Mitchill, Rept. Fish. N. Y., 1814, 18, near New York City.

Centropomus luteus Rafinesque, Précis des Découvertes Somnologiques, 1814, 19, Pennsylvania.

Perca notata Rafinesque, Amer. Month. Mag., II, 1818, 205, Lake Erie.

Perca serrato-granulata Cuvier and Valenciennes, Hist. Nat. Poiss., II, 1828, 34 (48), New York.

Perca granulata Cuvier and Valenciennes, loc. cit., 35 (48), pl. 9, New York.

Perca acuta Cuvier and Valenciennes, loc. cit., 36 (49), pl. 10, Lake Ontario.

Perca gracilis Cuvier and Valenciennes, loc. cit., 36 (50), Skaneateles Lake, N. Y.

Genus 749. STIZOSTEDION⁵¹ Rafinesque. *American pike perches*.
Stizostedion Rafinesque, Ichth. Ohiensis, 1820, 23 (*Perca salmonea*
 Rafinesque=*Perca vitrea* Mitchill).
Stizostethrum, attempted correction.

2181. *Stizostedion vitreum* (Mitchill). *Walleye; Wall-eyed pike; Pike perch; Dory; Glass-eye; Yellow pike; Blue pike; Jack salmon; White-eye; Spike* (small specimens about 8 inches long, at Maumee Bay, Sandusky Bay, Port Clinton, etc.); *Pickereel; River trout*.
 Great Lakes region, upper Mississippi, north to Assiniboia; east to Vermont and Pennsylvania; south to Georgia and Alabama; especially common northward.
Perca vitrea Mitchill, Am. Month. Mag., II, 1818, 247, Cayuga Lake, N. Y.
Lucioperca americana Cuvier and Valenciennes, Hist. Nat. Poiss., II, 1828, 90 (122), pl. 16, New York.
Perca salmonea Rafinesque, Amer. Month. Mag. III, 1818, 354, Ohio River.

2182. *Stizostedion glaucum* Hubbs. *Blue pike*.
 Great Lake region.
Stizostedion glaucum Hubbs, Univ. Mich. Mus. Zool., Misc. Publ. No. 15, July 7, 1926, 58, Pl. IV, fig. 1, Lake Erie.

Genus 750. CYNOPERCA Gill and Jordan.
Cynoperca Gill and Jordan, Bull. U. S. Nat. Mus., X, 1877, 44 (*Lucioperca canadensis* C. H. Smith, in Griffith's edition of Cuvier's Règne Animal).

2183. *Cynoperca grisea* (DeKay). *Sauger; Sand pike; Gray pike; Pickering*.
 Great Lakes region and westward to Montana, Tennessee, and Arkansas; the common species which varies northward into the next.
Lucioperca grisea DeKay, New York Fauna: Fishes, 1842, 19, New York.
Lucioperca borea Girard, Proc. Acad. Nat. Sci. Phila., 1857, 201, Fort Sarpi, Nebr.
Lucioperca pepinus Estes, in Hallock's Sportsman's Gazetteer, 1827, 322, Lake Pepin.
2184. *Cynoperca canadensis* (Smith). *Sauger; Sand pike; Gray pike*.
 Northeastern North America, from Vermont to the Great Lakes.
Lucioperca canadensis C. H. Smith, in Griffith's edition of Cuvier's Règne Anim., Fishes, 1836, 275, Canada.

Family 186. ETHEOSTOMIDÆ Darters

We begin this series with the species most nearly related to the *Percidæ*, from which the darters are apparently descended. *Percina* is the most primitive genus, and in most respects the highest, the other forms being progressively specialized to their life in swift brooks. From *Percina* two lines diverge in different directions; the allies of *Crystallaria* and *Vigil* to *Ammocrypta* toward a quiescent life, buried in sand; the other through *Pacilichthys*, *Nothonotus* and *Oligocephalus* for life in weedy brooks, culminating in *Microperca* and *Alvarius*, the lowest forms.

Genus 751. PERCINA Haldeman. *Log perches*.
Percina Haldeman, Jour. Acad. Nat. Sci. Phila., VIII, 1842, 330 (*P. nebulosa* Haldeman=*Sciæna caprodes* Rafinesque).
Pileoma DeKay, New York Fauna: Fishes, 1842, 16 (*P. semifasciata* DeKay=*Etheostoma caprodes* Rafinesque).

⁵¹ The European genus *Sander* Oken (*Lucioperca* Cuvier and Valenciennes) differs from *Stizostedion* in the close-set ventrals and the less close approximation of the anal spines.

- 2185** *Percina caprodes* (Rafinesque). *Log perch; Rockfish; Hogmolly; Hogfish*. Great Lakes and streams of the South and West from Quebec to Lake Superior, and Iowa.
Sciæna caprodes Rafinesque, Amer. Month Mag., Vol. II, 1818, 354, Ohio River.
Perca (Percina) nebulosa Haldeman, Jour. Acad. Nat. Sci. Phila., VIII, 1842, 330, Susquehanna River.
Pileoma semifasciatum DeKay, New York Fauna: Fishes, 1842, 16, pl. 50, fig. 162, Lake Champlain, Westport, N. Y.
Percina bimaculata Haldeman, Proc. Bost. Soc. Nat. Hist., 1844, 157, Susquehanna River.
- 2186.** *Percina carbonaria* (Baird and Girard). Streams of Mississippi to the Rio Grande.
Pileoma carbonaria Baird and Girard, Proc. Acad. Nat. Sci. Phila., VI, 1853, 387, Rio Salada; Rio Medina; San Pedro Creek, Tex.
- 2187.** *Percina zebra* (Agassiz). *Manitou darter*. Lakes of Michigan, northern Indiana, Wisconsin, and northward to Lake Superior; Cayuga Lake Basin. Probably varying into *P. caprodes*.
Pileoma zebra Agassiz, Lake Superior, 1850, 308, Lake Superior.
Percina manitou Jordan, Proc. Acad. Nat. Sci. Phila., XXIX, 1877, 53, Lake Manitou, Ind.
- 2188.** *Percina rex* (Jordan and Evermann). Roanoke River, Va. One of the largest and most imposing of the darters.
Etheostoma rex Jordan and Evermann, Proc. U. S. Nat. Mus., XI, 1888, 357, Pl. XLV, fig. 9, Roanoke River near Roanoke, Va.
- Genus 752. HADROPTERUS** Agassiz. *Black-sided darters*.
Hadropterus Agassiz, Amer. Jour. Sci. Arts, XVII, 1854, 305 (*H. nigrofasciatus* Agassiz).
- 2189.** *Hadropterus nigrofasciatus* Agassiz. *Crawl-a-bottom*. South Carolina to Louisiana.
Hadropterus nigrofasciatus Agassiz, Amer. Jour. Sci. Arts, XVII, 1854, 305, Mobile, Ala.
Alvordius spillmani Hay, Proc. U. S. Nat. Mus., III, 1880, 491, Chickasawha River, Miss.
- Genus 753. ALVORDIUS** Girard.
Alvordius Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 68 (*A. maculatus* Girard).
- 2190.** *Alvordius maculatus* Girard. *Black-sided darter*. Great Lakes region to the middle Missouri and north to Minnesota, southward through Missouri, Indiana, and Kentucky to Arkansas; especially common in the Ohio Valley.
Alvordius maculatus Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 68, Fort Gratiot, Mich.
Alvordius aspro Cope and Jordan, Proc. Acad. Nat. Sci. Phila., XXIX, 1877, 51, White River, Indianapolis, Ind.; substitute for *Etheostoma blennioides* of Kirtland, not of Rafinesque; perhaps distinct from *A. maculatus* which, if correctly described, has not been found later.
- 2191.** *Alvordius guntheri* (Eigenmann and Eigenmann). *Günther's darter*. Winnipeg south to Iowa.
Etheostoma guntheri Eigenmann and Eigenmann, Amer. Nat., November, 1892, 962, Souris River, Winnipeg.
- 2192.** *Alvordius peltatus* (Stauffer). *Shielded darter*. Southeastern Pennsylvania, southward to South Carolina in coastwise streams.
Hadropterus maculatus Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 100, tributary of Potomac River, Md.; name preoccupied.
Etheostoma peltatum Stauffer, in Cope, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 233, Conestoga Creek, near Lancaster, Pa.
Etheostoma nevisense Cope, Proc. Amer. Phil. Soc., XI, 1870, 261, falls of Neuse River, N. C.
Alvordius crassus Jordan and Brayton, Bull. U. S. Nat. Mus., XII, 1878, 12, near Greenville, S. C.

2193. *Alvordius sellaris* (Radcliffe and Welch). *Maryland darter*.
Streams of Maryland.
Hadropterus sellaris Radcliffe and Welch, Bull. U. S. Fish Com., XXXII, 1912, 31, Swan Creek, Havre de Grace, Md.
2194. *Alvordius ouachitæ* (Jordan and Gilbert). *Ouachita darter*.
Southern Indiana, western Kentucky, southwest to Arkansas, not rare; known from Patoka River, Ind.; lower Green and Obion Rivers, Kentucky and Tennessee; Saline River, Ark.
Etheostoma (Hadropterus) ouachitæ Jordan and Gilbert, Proc. U. S. Nat. Mus., X, 1887, 49, Saline River, Benton, Ark., a tributary of the Washita.
2195. *Alvordius maxinkuckiensis* (Evermann). *Maxinkuckee darter*.
Lake Maxinkuckee, Ind.
Hadropterus maxinkuckiensis Evermann, Rept. U. S. Fish Com., XXV, 1899 (1900), 366, pl. 17, fig. 2, Aubeenaubee Creek, an eastern tributary to Lake Maxinkuckee, Ind.
2196. *Alvordius evermanni* (Moenkhaus). *Evermann's darter*.
Lake Tippecanoe, Ind.
Hadropterus evermanni Moenkhaus, Bull. U. S. Fish Com., XXII, 1902 (1904), 397, with figure on p. 398, Tippecanoe Lake, Ind.
2197. *Alvordius roanoka* (Jordan and Jenkins)
Roanoke River, Va.
Hadropterus roanoka Jordan and Jenkins, Proc. U. S. Nat. Mus., XI, 1883, 353, Roanoke River at Roanoke, Salem, and Allegheny Springs, Va.
2198. *Alvordius macrocephalus* (Cope). *Big-headed darter*.
West slope of the Alleghenies from Pennsylvania southward in mountain streams; known from Youghiogheny River, Pa.; North Fork of Holston River, Saltville, Va.; Middle Fork of Holston River, Glade Spring, Va.; Big Sandy, upper Green, and Cumberland Rivers, Ky.; Clinch River, Tenn.
Etheostoma macrocephalum Cope, Trans. Amer. Phil. Soc., XIII, 1869, 400, Youghiogheny River, Pa.
2199. *Alvordius phoxocephalus* (Nelson).
Ohio to Iowa, south to Kentucky and Oklahoma, in sandy rivers; locally common.
Etheostoma phoxocephalum Nelson, Bull. Ill. Lab. Nat. Hist., I, 1876, 35, Illinois River and its tributaries.
- Genus 754. **SERRARIA** Gilbert.
Serraria Gilbert, Proc. U. S. Nat. Mus., VII, 1884, 205 (*Hadropterus scierus* Swain).
2200. *Serraria sciera* (Swain). Northern Indiana to Tennessee and Texas.
Hadropterus scierus Swain, Proc. U. S. Nat. Mus., VI, 1883, 252, Bean Blossom Creek, Monroe County, Ind.
2201. *Serraria serrula* (Jordan and Gilbert).
From southern Arkansas southward through eastern Texas.
Hadropterus scierus serrula Jordan and Gilbert, Proc. U. S. Nat. Mus., IX, 1886, 16, Red River, Fulton, Ark.
- Genus 755. **ERICOSMA** Jordan and Copeland.
Ericosma Jordan and Copeland, Bull. U. S. Nat. Mus., X, 1877, 8 (*Alvordius evdes* Jordan and Copeland).
2202. *Ericosma evdes* (Jordan and Copeland).
Indiana in the Wabash Basin, west to Cedar River, Iowa, and southward in Arkansas, Kentucky, and Tennessee; French Broad River and the Ozark region.
Alvordius evdes Jordan and Copeland, Proc. Acad. Nat. Sci. Phila., XXIX, 1877, 51, White River near Indianapolis, Ind.
- Genus 756. **HYPOHOMUS** Cope.
Hypohomus Cope, Proc. Amer. Phil. Soc. Phila., XI, 1870, 449 (*Cottogaster aurantiacus* Cope).

2203. *Hypohomus aurantiacus* (Cope).
Upper Tennessee Basin, North Fork of Holston, Clinch, Watauga,
and French Broad Rivers.
Cottogaster aurantiacus Cope, Jour. Acad. Nat. Sci. Phila., VI, 1869,
211, North Fork of Holston River, Saltville, Va.
2204. *Hypohomus cymatotænia* (Gilbert and Meek).
Western Kentucky and southern Missouri.
Etheostoma (Hadropterus) cymatotænia Gilbert and Meek, Proc. U. S.
Nat. Mus., X, 1887, 51, Niangua River and Osage Fork of the Gas-
conade near Marshfield, Mo.; Sac River near Greenfield, Mo.
2205. *Hypohomus nianguæ* (Gilbert and Meek). *Niangua darter*.
Niangua River, Ozark region of Missouri.
Etheostoma (Hadropterus) nianguæ Gilbert and Meek, Proc. U. S. Nat.
Mus., X, 1887, 52, Niangua River near Marshfield, Mo.
2206. *Hypohomus spilotos* (Gilbert).
Kentucky River.
Etheostoma nianguæ spilotos Gilbert, Proc. U. S. Nat. Mus., X, 1887,
53, Sturgeon Creek, a tributary of Kentucky River near Travelers
Rest, Owsley County, Ky.
- Genus 757. *SWAINIA* Jordan and Evermann.
Swainia Jordan and Evermann, Fishes North and Mid. Amer., 1896,
1040 (*Etheostoma (Hadropterus) squamatus* Gilbert and Swain).
2207. *Swainia squamata* (Gilbert and Swain).
Upper Tennessee River Basin; known from Watauga and French
Broad Rivers.
Etheostoma (Hadropterus) squamatus Gilbert and Swain, Proc. U. S.
Nat. Mus., X, 1887, 50, French Broad River at mouth of Wolf Creek,
Tenn.
- Genus 758. *COTTOGASTER* Putnam.
Cottogaster Putnam, Bull. Mus. Comp. Zool., I, 1863, 4 (*Boleosoma
tessellatum* Thompson; not of DeKay = *Cottogaster putnami* Jordan
and Gilbert).
Rheocrypta Jordan, Bull. U. S. Nat. Mus., X, 1877, 9 (*R. copelandi*
Jordan).
2208. *Cottogaster copelandi* (Jordan). *Copeland's darter*.
Great Lakes region, south to the Black Warrior, westward to Missouri
and through the Ozark region, where it is abundant; also about
Indianapolis in clear brooks.
Rheocrypta copelandi Jordan, Bull. U. S. Nat. Mus., X, 1877, 9, White
River near Indianapolis, Ind.
2209. *Cottogaster putnami* (Jordan and Gilbert). *Putnam's darter*.
Lake Champlain.
Cottogaster putnami Jordan and Gilbert, Synopsis, 1883, 498, Westport
Brook, Lake Champlain, N. Y. Probably intergrades with *C.
copelandi*.
2210. *Cottogaster uranidea* (Jordan and Gilbert).
Lower Wabash Basin to southern Missouri, south through Arkansas
and Alabama to the Escambia; mostly in sandy lowland streams.
Etheostoma (Cottogaster) uranidea Jordan and Gilbert, Proc. U. S. Nat.
Mus., X, 1887, 48, Washita River, Arkadelphia, Ark.
- Genus 759. *IMOSTOMA* Jordan.
Imostoma Jordan, Proc. Acad. Nat. Sci. Phila., XXIX, 1877, 49 (*Ha-
dropterus shumardi* Girard).
2211. *Imostoma shumardi* (Girard). *Shumard's darter*.
Michigan, Ohio, Indiana, and Illinois southward to Kentucky and
Arkansas.
Hadropterus shumardi Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859,
100, Arkansas River near Fort Smith, Ark.
Etheostoma wrighti McCormick, Bull. Oberlin College Lab., No. 2,
1891, 30, near Oberlin, Ohio.

2212. *Imostoma gilberti* (Evermann and Thoburn). *Gilbert's darter*.
Clinch River, Tenn.
Ulocentra gilberti Evermann and Thoburn in Jordan and Evermann,
Fishes North and Mid. Amer., 1896, 1049, Clinch River at Walker's
ford near Tazewell, Tenn.
2213. *Imostoma meadiæ* (Jordan and Evermann). *Meadie's darter*.
Indian Creek, Powell River basin, eastern Tennessee.
Ulocentra meadiæ Jordan and Evermann, Fishes North and Mid. Amer.,
Nov. 26, 1893, 2852, Indian Creek, Cumberland Gap, Tenn.
2214. *Imostoma longimane* (Jordan).
Basin of James River, Va.
Etheostoma longimana Jordan, Proc. Acad. Nat. Sci. Phila., XI, 1888,
179, tributary of James River, Va.
2215. *Imostoma cheneyi* (Evermann and Kendall). *Cheney's darter*.
Racket River near Norfolk, St. Lawrence County, N. Y.
Cottogaster cheneyi Evermann and Kendall, Bull. U. S. Fish Com.,
XVII, 1897 (Feb. 9, 1898), 129, pl. 8, fig. 8, Racket River, near
Norfolk, N. Y.
2216. *Imostoma podostemone* (Jordan and Jenkins).
Roanoke River Basin, Va.
Etheostoma podostemone Jordan and Jenkins, Proc. U. S. Nat. Mus.,
XI, 1888, 359, Roanoke River, at Roanoke, Salem, and Allegheny
Springs, Va.
- Genus 760. *ETHEOSTOMA* Rafinesque.
Etheostoma Rafinesque, Jour. Phys., etc., 1819, 419 (*E. blennioides*
Rafinesque, as restricted by code).
Dipleston Rafinesque, Ichth. Ohiensis, 1820, 37 (*Etheostoma blennioides*
Rafinesque).
Hyostoma Agassiz, Amer. Jour. Sci., XVII, 1854, 305 (*H. newmani*
Agassiz = *Etheostoma blennioides* Rafinesque).
2217. *Etheostoma blennioides* Rafinesque. *Green-sided darter*.
New York to South Dakota and Kansas, south to lower Alabama
Basin; a beautiful fish.
Etheostoma blennioides Rafinesque, Jour. de Physique, LXXXVIII,
1819, 419, Ohio River.
Hyostoma newmani Agassiz, Amer. Jour. Sci. and Arts, X, VII, 1854,
305, vicinity of Huntsville, Ala.
Pileoma cymatogramma Abbott, Proc. Acad. Nat. Sci. Phila., XII, 1860,
327, no locality.
Hyostoma blennioperca Cope, Jour. Acad. Nat. Sci. Phila., VI, 1868,
215, tributaries of Kanawha and Holston Rivers.
- Genus 761. *ULOCENTRA* Jordan.
Ulocentra Jordan, Man. Vertebrates, ed. 2, 1878, 223 (*Arlina atripinnis*
Jordan = *Hyostoma simotermum* Cope).
2218. *Ulocentra simotera* (Cope).
West Virginia, eastern Kentucky, and Tennessee, in the basins of the
Green, Cumberland, and Tennessee Rivers, southward through
Alabama to the Escambia River.
Hyostoma simotermum Cope, Jour. Acad. Nat. Sci. Phila., VI, 1868, 215,
Holston River and its tributaries, near Nashville, Tenn.
Arlina atripinnis Jordan, Bull. U. S. Nat. Mus., X, 1877, 10, tributary
of Cumberland River near Nashville, Tenn.
? *Etheostoma duryi* Henshall, Jour. Cincinnati Soc. Hist., 1889, 32,
tributary of Tennessee River.
2219. *Ulocentra histrio* (Jordan and Gilbert).
Southern Indiana, southwestward to Arkansas; known from the lower
Wabash and tributaries; also from Green River, Ky., and Black,
Poteau, and Washita Rivers, Ark.
Etheostoma (Ulocentra) histrio Jordan and Gilbert, Proc. U. S. Nat.
Mus., X, 1887, 47, Poteau River near Hackett City, Ark.; Saline
River at Benton, and Washita River at Arkadelphia, Ark.

- 2220. *Ulocentra blennius*** (Gilbert and Swain).
Northern Alabama, in streams tributary to the Tennessee River.
Etheostoma (Rhotheca) blennius Gilbert and Swain, Proc. U. S. Nat. Mus., X, 1887, 55, Cox Creek and Shoal Creek, tributary to Tennessee River, Florence, Ala.
- 2221. *Ulocentra verecunda*** (Jordan and Evermann).
Tributaries of Holston River, Va.; rare.
Etheostoma verecundum Jordan and Evermann, Proc. U. S. Nat. Mus., XI, 1888, 360, Pl. XLV, fig. 12, Middle Fork of the Holston River, about 5 miles south of Glade Spring, Va.
- 2222. *Ulocentra phlox*** (Cope).
Trinity River, Tex.
Boleosoma phlox Cope, Bull. U. S. Nat. Mus., XVII, 1880, 30, Trinity River at Fort Worth, Tex.
- 2223. *Ulocentra stigmæa*** (Jordan). *Speck*
Tennessee and Arkansas to Georgia and Louisiana.
Boleosoma stigmæum Jordan, Ann. Lyc. Nat. Hist. N. Y., XI, 1876 (1877), 311, small tributaries of Etowah and Oostanaula Rivers near Rome, Ga.
Pacilichthys saxatilis Hay, Proc. U. S. Nat. Mus., III, 1880, 495, stream at Enterprise, Miss.
- Genus 762. BOLEOSOMA DeKay. Tessellated darters.**
Boleosoma DeKay, New York Fauna: Fishes, 1842, 20 (*B. tessellatum* DeKay = *Etheostoma olmstedii* Storer).
Arlina Girard, Proc. Acad. Nat. Sci. Phila., 1859, 64 (*A. effulgens* Girard).
Estrella Girard, loc. cit., 65 (*E. atromaculata* Girard).
- 2224. *Boleosoma olmstedii*** (Storer). *Tessellated darter; Grand Orankee darter; Sand darter.*
Lake Ontario to Massachusetts and south to North Carolina, east of the Alleghenies.
Etheostoma olmstedii Storer, Jour., Bost. Soc. Nat. Hist., IV, 1842, 61, pl. 5, fig. 2, Hartford, Conn.
Perca minima Haldeman, Jour. Acad. Nat. Sci. Phila., VIII, 1842, 330, Susquehanna River.
Boleosoma tassellatum DeKay, New York Fauna: Fishes, 1842, 20, pl. 20, fig. 57; New York fresh-water streams.
Estrella atromaculata Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 66, Potomac River, vicinity of Washington, D. C.
? *Boleosoma æsopus* Cope, Proc. Amer. Phil. Soc., XI, 1870, 270, Loyalsoc Creek, Pa.
- 2225. *Boleosoma nigrum*** (Rafinesque). *Johnny darter; Blind simon.*
Eastern United States, Ohio Valley, Great Lakes region, and upper Mississippi, west to Colorado and north to Manitoba.
Etheostoma nigrum Rafinesque, Ichth. Ohienensis, 1820, 37, Green River, Ky.
Boleosoma maculatum Agassiz, Lake Superior, 1850, 305, Lake Superior.
Boleosoma olmstedii brevipinnis Cope, Jour. Acad. Nat. Sci. Phila., VI, 1868, 214, Kiskiminitas River, Pa.
Pacilichthys beani Jordan, Proc. U. S. Nat. Mus., VII, 1884, 479, Tabo Creek, Mo.
- 2226. *Boleosoma effulgens*** (Girard). *Tassellated darter.*
Maryland to North Carolina.
Arlina effulgens Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 65, brooks and streams flowing into Potomac River.
- 2227. *Boleosoma mesæum*** (Cope).
Platte River near Fort Kearney, Nebr.
Pacilichthys mesæus Cope, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 232, Platte River near Fort Kearney, Nebr.
- 2228. *Boleosoma maculatiiceps*** Cope.
Upper waters of Catawba River, N. C.
Boleosoma maculatiiceps Cope, Proc. Amer. Phil. Soc., XI, 1870, 269, upper waters of Catawba River, N. C.

- 2229. *Boleosoma vexillare* Jordan.**
Tributaries of the James, Roanoke, and Rappahannock Rivers.
Boleosoma vexillare Jordan, Proc. U. S. Nat. Mus., II, 1879, 235, Rappahannock River at Warrenton, Va.
- 2230. *Boleosoma susanæ* Jordan and Swain. *Susan's darter*.**
Basin of upper Cumberland River, Ky.
Boleosoma susanæ Jordan and Swain, Proc. U. S. Nat. Mus., VI., 1883, 249, Wolf Creek and other tributaries of the Clear Fork of Cumberland River near Pleasant View, Whitley County, Ky.
- Genus 763. VAILLANTIA Jordan.**
Vaillantia Jordan, Bull. U. S. Nat. Mus., XII, 1878, 89 (*Boleosoma camurum* Forbes).
- 2231. *Vaillantia camura* (Forbes).**
Indiana to Iowa and Mississippi, southwest to Houston, Tex.
Boleosoma camurum Forbes, Bull. Ill. Lab. Nat. Hist., I, 1878, 40, Cache River and Clear Creek, Union County, Johnston County, and Pekin, Ill.; name preoccupied in *Nothonotus* but not in *Boleosoma* or *Vaillantia*,
Vaillantia chlorosoma Hay, Proc. U. S. Nat. Mus., III, 1880, 495, Mississippi.
- Genus 764. CRYSTALLARIA Jordan and Gilbert.**
Crystallaria Jordan and Gilbert, in Jordan, Cat. Fishes N. Amer., 1885, 78 (*Pleurolepis asprellus* Jordan).
- 2232. *Crystallaria asprella* (Jordan)**
Southern Indiana and Illinois to Arkansas and Alabama, chiefly in the larger, clearer streams. Recorded from Ohio River at Rising Sun, Ind.; Wabash River at New Harmony, Vincennes, and Terre Haute; Green River, Ky.; Choccolo Creek, Ala.; and Washita River, Ark.; besides the original locality in Illinois.
Pleurolepis asprellus Jordan, Bull. Ill. Lab. Nat. Hist., I, 1878, No. 2, 38, 1878, rocky tributary of Mississippi River in Hancock County, Ill.
- Genus 765. VIGIL Jordan.**
Pleurolepis (Agassiz) Putnam, Bull. Mus. Comp. Zool., I, 1863, 5 (*Etheostoma pellucidum* (Baird) Agassiz; name preoccupied by Egerton for a genus of fossil fishes.
Vigil Jordan, Proc. Acad. Nat. Sci. Phila., LXX, 1918 (1919), 344 (*Pleurolepis pellucidus* Agassiz).
- 2233. *Vigil pellucidus* (Baird). *Sand darter*.**
Lake Erie to Minnesota, Kentucky, and Texas.
Pleurolepis pellucidus Baird, in Agassiz, Bull. Mus. Comp. Zool., I, 1863, 5, no locality; the specimens from Black River, Ohio, the types of *Etheostoma pellucidum* Baird (MS., 1853).
- 2234. *Vigil clarus* (Jordan and Meek).**
Mississippi Valley; Wabash River, west to central Iowa and Minnesota, and south to Arkansas and northern Texas.
Ammocrypta clara Jordan and Meek, Proc. U. S. Nat. Mus., VIII, 1885, 8, Des Moines River, Ottumwa, Iowa.
- 2235. *Vigil vivax* (Hay).**
Mississippi and northwest through Arkansas and south to Texas.
Ammocrypta vivax Hay, Bull. U. S. Fish Com., II, 1882, (1883), 58, Pearl River, Jackson, Miss.
- Genus 766. IOA Jordan and Brayton.**
Ioa Jordan and Brayton, Bull. U. S. Nat. Mus., XII, 1878, 88 (*Pæclichthys vitreus* Cope).
- 2236. *Ioa vitrea* (Cope).**
Southeastern Virginia and western North Carolina.
Pæclichthys vitreus Cope, Proc. Amer. Phil. Soc. Phila., XI, 1870, 263, Walnut Creek, a tributary of Neuse River, Wake County, N. C.
- 2237. *Ioa vigil* Hay.**
Pearl River, Jackson, Miss.
Ioa vigil Hay, Bull. U. S. Fish Com., II, 1882 (1883), 59, Pearl River, Jackson, Miss.

Genus 767. AMMOCRYPTA Jordan. *Sand darters.*

Ammocrypta Jordan, Bull. U. S. Nat. Mus., X, 1877, 5 (*A. beanii* Jordan).

2238. *Ammocrypta beanii* Jordan.

Gulf States, Alabama to Louisiana.

Ammocrypta beanii Jordan, Bull. U. S. Nat. Mus., X, 1877, 5, Notalbany River, Tickfaw, La.

Ammocrypta gelida Hay, Proc. U. S. Nat. Mus., III, 1880, 490, Enterprise, Miss.

Genus 768. PÆCILICHTHYS Agassiz.

Pæciosoma Agassiz, Lake Superior, 1850, 299 (*Etheostoma variata* Kirtland); name preoccupied.

Pæcilichthys Agassiz, Amer. Jour. Sci. Arts, XVII, 1854, 305 (*Etheostoma variata* Kirtland).

2239. *Pæcilichthys variatus* (Kirtland).

Ohio River Basin, from western Pennsylvania to Kentucky; scarce. Long confused with *Oligocephalus cæruleus*.

Etheostoma variata Kirtland, Zoology of Ohio, 1838, 168, 192, Mahoning River, Ohio

Hadropterus tessellatus Jordan, Bull. U. S. Nat. Mus., X, 1877, 7, Allegheny River, Foxburg, Pa.

Genus 769. NANOSTOMA Putnam.

Nanostoma Putnam, in Jordan, Bull. U. S. Nat. Mus., X, 1877, 6 (*Pæcilichthys zonalis* Cope); not *Nannostomus* Gunther).

Rhathæa Jordan, Rept. U. S. Fish Com., XIII, 1885 (1887), 868, p. 80 of reprint issued 1885; substitute for *Nanostoma* Putnam, regarded as preoccupied by *Nannostomus* Günther.

2240. *Nanostoma zonale* (Cope). *Banded darter.*

Mississippi Valley from Ohio and northern Indiana (Kankakee River) west through Iowa and south through Kentucky and Tennessee into Alabama, Louisiana, and Arkansas.

Pæcilichthys zonalis Cope, Jour. Acad. Nat. Sci. Phila., VI, 1868, 212, Holston River, Va.

Nanostoma vincentipes Jordan, Proc. U. S. Nat. Mus., II, 1879, 236, tributary of Illinois River at Naperville, Ill.

2241. *Nanostoma arcansanum* (Jordan and Gilbert).

Ozark region of Missouri and Arkansas.

Etheostoma zonale arcansanum Jordan and Gilbert, Proc. U. S. Nat. Mus., IX, 1886, 5, Spring River, Carthage, Mo.; James River, Marshfield, Mo.; Poteau River, Hackett City, Ark.; Washita River, Arkadelphia, Ark., and Saline River, Benton, Ark.

2242. *Nanostoma swannanoa* (Jordan and Evermann).

Upper waters of the Tennessee River.

Etheostoma swannanoa Jordan and Evermann, Proc. U. S. Nat. Mus., XI, 1888, 360, Pl. XLV, fig. 13, South Fork of Holston River, Holstein Mills, Va.; Middle Fork of Holston River, Marion, Va. and South Fork of Swannanoa River, Black Mountain, N. C.

2243. *Nanostoma elegans* (Hay).

Chickasawha River, Miss.

Nanostoma elegans Hay, Proc. U. S. Nat. Mus., III, 1880, 493, shallow rocky branch of Chickasawha River, Enterprise, Miss.

2244. *Nanostoma thalassinum* (Jordan and Brayton).

Santee River Basin in North and South Carolina.

Nothnotus thalassinus Jordan and Brayton, Bull. U. S. Nat. Mus., XII, 1878, 13, Reedy River, Greenville, S. C.; Catawba River and tributaries in North Carolina; Ennoree River, Chick Springs, S. C.; and Saluda River, Farr's Mill, S. C.

2245. *Nanostoma inscriptum* (Jordan and Brayton).

Oconee River, Ga.

Nothnotus inscriptus Jordan and Brayton, Bull. U. S. Nat. Mus., XII, 1878, 34, Oconee River, Sulphur Springs, Hall County, Ga.

2246. *Nanostoma rupestre* (Gilbert and Swain).
North River, a tributary of Black Warrior River, Ala.
Etheostoma (Rhotheca) rupestre Gilbert and Swain, Proc. U. S. Nat. Mus., X, 1887, 57, North River near Tuscaloosa, Ala.
- Genus 770. *NOTHONOTUS* Agassiz.
Nothonotus Agassiz, Bull. Mus. Comp. Zool., I, 1863, 3 (*Etheostoma maculata* Kirtland).
2247. *Nothonotus maculatus* Kirtland.
Ohio and Indiana, southward through Kentucky and Tennessee to northern Alabama, in tributaries of the Wabash, Ohio, Cumberland, and Tennessee Rivers.
Etheostoma maculata Kirtland, Jour. Bost. Soc. Nat. Hist., 1840, 276, Mahoning River, Ohio.
Pacilichthys sanguifluus Cope, Proc. Amer. Phil. Soc. Phila., XI, 1870, 264, headwaters of the South Fork of the Cumberland River in Tennessee.
2248. *Nothonotus camurus* (Cope). *Blue-breasted darter*.
Lake Erie to Tennessee, in clear, swift waters, not common; the most brilliantly colored of fresh-water fishes
Pacilichthys camurus Cope, Proc. Amer. Phil. Soc. Phila., XI, 1870, 265, headwaters of Cumberland River in Tennessee.
2249. *Nothonotus vulneratus* (Cope).
French Broad River
Pacilichthys vulneratus Cope, Proc. Amer. Phil. Soc. Phila., XI, 1870, 266, tributary of French Broad River, Warm Springs, N. C.
2250. *Nothonotus cinereus* (Storer)
Tennessee and Cumberland Rivers; Tennessee River at Florence, Ala.; Obeys River at Olympus, Tenn.; Rock Creek near Whitley Station, Ky.
Etheostoma cinerea Storer, Proc. Bost. Soc. Nat. Hist., II, 1845, 49, Florence, Ala.
2251. *Nothonotus tessellatus* (Storer). *Tessellated darter*.
Florence, Ala.
Etheostoma tessellata Storer, Proc., Bost. Soc. Nat. Hist., II, 1845, 48, Tennessee River at Florence, Ala. (Not *Boleosoma tessellatum* DeKay).
2252. *Nothonotus rufilineatus* (Cope).
Upper tributaries of the Tennessee, Cumberland, and Green Rivers.
Pacilichthys rufilineatus Cope, Proc. Amer. Phil. Soc., XI, 1870, 267, Warm Springs Creek, French Broad River, Madison County, N. C.
2253. *Nothonotus jordani* (Gilbert). *Jordan's darter*.
Tributaries of Coosa River in the Alabama River Basin.
Etheostoma (Nothonotus) jordani Gilbert, Bull. U. S. Fish Com., I, 1889 (1891), 156, pl. 43, fig. 3, Choccolo Creek, Oxford, Ala., and Chestnut Creek, Verbena, Ala.
- Genus 771. *RAFINESQUIELLUS* Jordan and Evermann.
Aplesion Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 102 (*A. pottsi* Girard); not of Rafinesque.
Rafinesquiellus Jordan and Evermann, Fishes North and Mid. Amer., 1896, 1082 (*Aplesion pottsi* Girard).
2254. *Rafinesquiellus pottsi* (Girard).
Streams of Chihuahua, Mexico, in Rio Grande Basin.
Aplesion pottsi (misprinted *potsii*) Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 102, tributaries of Chihuahua River, Mexico.
Etheostoma macropterus Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 289, Chihuahua, Mexico.
- Genus 772. *OLIGOCEPHALUS* Girard.
Oligocephalus Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 67 (*Boleosoma lepida* Baird and Girard).

- 2255. *Oligocephalus caeruleus*** (Storer). *Blue darter; Rainbow darter; Soldierfish, Blue johnny.*
Upper Mississippi Valley, from Kentucky to Michigan and east to New York.
Etheostoma caerulea Storer, Proc. Bost. Soc. Nat. Hist., II, 1845, 47, Fox River, Ill.
Pacilosoma erythrogastrum Kirtland, Cleveland Annals Sci., 1854, 4, near Cleveland, Ohio
Pacilichthys versicolor Agassiz, Amer. Jour. Sci. Arts, 1854, 304, Quincy, Ill.
Pacilichthys spectabilis Agassiz, Amer. Jour. Sci. Arts, 1854, 304, Osage River, Mo.
Pacilosoma transversum Abbott, Proc. Acad. Nat. Sci. Phila., XII, 1860, 326, Lake Superior.
- 2256. *Oligocephalus lepidus*** (Baird and Girard).
Streams of Arkansas, Texas, and Chihuahua; perhaps more than one species included.
Boleosoma lepida Baird and Girard, Proc. Acad. Nat. Sci. Phila., VI, 1853, 388, upper tributaries of the Rio Nueces, Tex.
Oligocephalus grahmi Girard, loc. cit., XI, 1859, 102, Devil River, Tex.
Oligocephalus leonensis Girard, loc. cit., 102, Leon River, Tex.
Oligocephalus pulchellus Girard, loc. cit., 102, Gypsum Creek, a tributary to the Canadian River.
- 2257. *Oligocephalus fricksia*** (Hildebrand).
Tributaries of Savannah River.
Etheostoma fricksia Hildebrand, Bull. U. S. Bur. Fish., XXIX, 1924, 7, Brook near Augusta, Ga.
- 2258. *Oligocephalus iowæ*** (Jordan and Meek).
Upper Mississippi Valley, from Iowa, Nebraska, and Colorado north to Assiniboia; abundant and widely distributed.
Etheostoma iowæ Jordan and Meek, Proc. U. S. Nat. Mus., VIII, 1885, 10, Chariton River, Chariton, Iowa.
Etheostoma quappella Eigenmann and Eigenmann, Amer. Nat., 1892, 963, Qu'Appelle River, Manitoba.
- 2259. *Oligocephalus aubeenaubei*** (Evermann). *Aubeenaubee darter.*
Aubeenaubee Creek, an eastern inlet to Lake Maxinkuckee, Ind.
Etheostoma aubeenaubei Evermann, Rept., U. S. Fish Com., XXV, 1899 (1900), 367, Aubeenaubee Creek, Lake Maxinkuckee, Ind.
- 2260. *Oligocephalus hildebrandti*** (Evermann and Clark).
Fletcher Lake, Fulton Co., Ind.
Etheostoma hildebrandti Evermann and Clark, Proc. Biol. Soc. Wash., XXIII, May 4, 1910, 81-88, fig. 1, Fletcher Lake, Fulton Co., Ind.
- 2261. *Oligocephalus jessiae*** (Jordan and Brayton). *Jessie's darter.*
Southern Illinois to Georgia and Mississippi.
Pacilichthys jessiae Jordan and Brayton, in Jordan, Man. Vert., ed. 2, 1878, 227; creek near Ringgold, Ga.
Pacilichthys asprigenus Forbes, Bull. Ill. Lab. Nat. Hist., I, No. 2, 1877, 41, small creek at Pekin, Ill.
Pacilichthys swaini Jordan, Proc. U. S. Nat. Mus., VII, 1884, 479, tributary of Pearl River, Monticello, Miss.
- 2262. *Oligocephalus luteovinctus*** (Gilbert and Swain).
Stone River, Tenn.
Etheostoma luteovinctum Gilbert and Swain, Proc. U. S. Nat. Mus., X, 1887, 58, Stone River near Nashville, Tenn.
- Genus 773. *NIVICOLA*** Jordan and Evermann.
Nivicola Jordan and Evermann, Fishes North and Mid. Amer., 1896, 1082 (*Pacilichthys borealis* Jordan).
- 2263. *Nivicola borealis*** (Jordan). *Northern darter.*
St. Lawrence River at Montreal, Canada, and Muskoka Lakes near Lake Huron.
Pacilichthys borealis Jordan, Proc. U. S. Nat. Mus., VII, 1884, 477, Montreal, Canada.

2264. *Nivicola cragini* (Gilbert). *Cragin's darter*.
Western portion of the Arkansas River Basin, from Garden City, Kans., to Canyon City, Colo.
Etheostoma cragini Gilbert, Bull. Washburn Coll. Lab., March and April, 1885, 99, small stream connecting the "Lake" at Garden City, Kans., with Arkansas River.
2265. *Nivicola punctulata* (Agassiz).
Ozark region of southwestern Missouri.
Paculichthys punctulatus Agassiz, Amer. Jour. Sci. Arts, XVII, 1854, 304, Osage River, Mo.
2266. *Nivicola pagei* (Meek).
Tributary of Neosho River, Arkansas Basin.
Etheostoma pagei Meek, Amer. Nat., 1894, 957, Neosho, Mo.; only two specimens known.
2267. *Nivicola artesiae* (Hay).
Georgia to central Texas.
Paculichthys artesæ Hay, Proc. U. S. Nat. Mus., III, 1880, 494, from a small branch of Catawba River, Artesia, Lowndes County, Miss.
2268. *Nivicola lepidogenys* (Evermann and Kendall).
Rio Comal, Tex.
Etheostoma lepidogenys Evermann and Kendall, Bull. U. S. Fish. Com., XII, 1892 (Feb. 6, 1894), 114, pl. 35, fig. 3, Rio Comal, New Braunfels, Tex.
2269. *Nivicola virgata* (Jordan).
Tributaries of Cumberland River in western Kentucky.
Paculichthys virgatus Jordan, Proc. U. S. Nat. Mus., II, 1879, 236, Rock Castle River, Livingston, Ky.
2270. *Nivicola obeyense* (Kirsch).
Tributaries of the Cumberland River in Clinton County, Ky.
Etheostoma obeyense Kirsch, Bull. U. S. Fish. Com., X, 1890 (1892), 292, with figure; all streams tributary to the Cumberland River in Clinton County, Ky.
2271. *Nivicola tippecanoe* (Jordan and Evermann).
Tippecanoe River, Ind.
Etheostoma tippecanoe Jordan and Evermann, Proc. U. S. Nat. Mus., XIII, 1890, 3 (with a figure of *Etheostoma camurum* by error of printer), Tippecanoe River, Marshland, Ind.
- Genus 774. **CLARICOLA** Jordan and Evermann.
Claricola Jordan and Evermann, Fishes North and Mid. Amer., 1896, 1093 (*Etheostoma juliae* Meek).
2272. *Claricola juliae* (Meek). *Julia's darter*.
Basin of White River, Mo.
Etheostoma juliae Meek, Bull. U. S. Fish. Com., IX, 1889 (1891), 130, pl. 42, fig. 2, James River, near Springfield, Mo.
2273. *Claricola whipplii* (Girard). *Whipple's darter*.
Lower Arkansas Basin; locally abundant in clear tributaries of the Saline, Washita, etc.
Boleichthys whipplii Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 103, Coal Creek, Ark.
2274. *Claricola alabamæ* (Gilbert and Swain). *Alabama darter*.
Black Warrior and Big Catawba Rivers, Ala.
Etheostoma whipplei alabamæ Gilbert and Swain, Proc. U. S. Nat. Mus., X, 1887, 62, Black Warrior River near Morris and Tuscaloosa, Ala.
2275. *Claricola squamiceps* (Jordan).
Lower Wabash Valley, Ind., through western Kentucky and Tennessee to Georgia and western Florida. A peculiar species resembling *Catnotus*; perhaps not a *Claricola*.
Etheostoma squamiceps Jordan, Bull. U. S. Nat. Mus., X, 1877, 11, Russellville, Ky.
Etheostoma parvipinne Gilbert and Swain, Proc. U. S. Nat. Mus., X, 1887, 59, small spring branch, tributary to Black Warrior River, Tuscaloosa, Ala.

Genus 775. CATONOTUS Agassiz. *Fantail darters.*

Catonotus Agassiz, Amer. Jour. Sci. Arts, XVII, 1854, 305 (*C. lineolatus* Agassiz).

Etheostoma Rafinesque, as restricted by Cope and Jordan.

Richia Coker, Bull. U. S. Bur. Fish., XLII, 1926, 105, 106; *R. brevispina* Coker, preoccupied by *Richia*, a genus of moths.

Richiella Coker, Copeia, No. 162, March, 1927, 17, substitute for *Richia*, preoccupied.

2276. *Catonotus flabellaris* (Rafinesque). *Fan-tailed darter.*

New York to Virginia, west to Iowa and south to South Carolina and northern Alabama.

Etheostoma flabellaris Rafinesque, Jour. de Physique, LXXXVIII, 1819, 419, tributaries of Ohio River.

Etheostoma flabellata Rafinesque, Ichth. Ohiensis, 1820, 36, Ohio River.

Etheostoma fontinalis Rafinesque, loc. cit., 85, Ohio River.

Etheostoma linsleyi Storer, Proc. Bost. Soc. Nat. Hist., IV, 1851, 37, Wolcott, Wayne County, N. Y.

Oligocephalus humeralis Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 67, James River, Va.

Catonotus fasciatus Girard, loc. cit., 68, Madrid, N. Y., and Grass River.

Catonotus kenricki Putnam, Bull. Mus. Comp. Zool., I, 1863, 3, southern Illinois.

Richia brevispina Coker, Bull. U. S. Bur. Fish., XLII, March, 1927, 106, fig. 1, Paddy Creek, N. C.

2277. *Catonotus flabellare lineolatum* (Agassiz).

Minnesota to northern Indiana and northern Missouri.

Catonotus lineolatus Agassiz, Amer. Jour. Sci. Arts, XVII, 1854, 305, small creek near Quincy, Ill.

2278. *Catonotus flabellare cumberlandicum* (Jordan and Swain). *Cumberland darter*

Brooks in Cumberland Mountains tributary to Cumberland River.

Etheostoma cumberlandicum Jordan and Swain, Proc., U. S. Nat. Mus., VI, 1883, 251, small streams of the Cumberland Mountains; Wolf Creek and Briar Creek near Pleasant View, Whitley County, Ky.

Genus 776. TORRENTARIA Jordan and Evermann.

Torrentaria Jordan and Evermann, Fishes North and Mid. Amer., 1896, 1080 (*Etheostoma sagitta* Jordan and Swain).

2279. *Torrentaria sagitta* (Jordan and Swain).

Cumberland River.

Pacilichthys sagitta Jordan and Swain, Proc. U. S. Nat. Mus., VI, 1883, 250, Wolf Creek, near Pleasant View, Whitley County, Ky.

2280. *Torrentaria fasciata* (Girard).

Chihuahua River, Mexico, in Rio Grande Basin.

Diplesion fasciatus Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 101, Chihuahua River, Mexico; the name preoccupied in *Etheostoma*, not in *Torrentaria*.

Etheostoma australe Jordan, Proc. U. S. Nat. Mus., XI, 1888, 362, Chihuahua River, Mexico; based on the types of *Diplesion fasciatus* Girard.

Etheostoma scovellii Woolman, Amer. Nat., March, 1892, 260, Rio de las Conchas, Chihuahua, Mexico.

Genus 777. PSYCHROMASTER Jordan and Evermann.

Psychromaster Jordan and Evermann, Fishes North and Mid. Amer., 1896, 1099 (*Etheostoma tuscumbia* Gilbert and Swain).

2281. *Psychromaster tuscumbia* (Gilbert and Swain). *Tuscumbia darter.*

Tennessee River Basin in northern Alabama

Etheostoma tuscumbia Gilbert and Swain, Proc. U. S. Nat. Mus., X, 1887, 63, stream flowing from the large spring at Tuscumbia, Ala.

Genus 778. BOLEICHTHYS Girard.

Boleichthys Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 103 (*Boleichthys exilis* Girard).

- 2282. *Boleichthys fusiformis* (Girard). *Fusiform darter*.**
Massachusetts and south in coastwise streams.
Boleosoma fusiforme Girard, Proc. Bost. Soc. Nat. Hist., IV, 1854, 41,
Charles River, Mass.
Hololepis erochrous Cope, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 233,
Brown's Mill, N. J., opposite Philadelphia
- 2283. *Boleichthys gracilis* (Girard). *Crimson darter*.**
Southern Indiana to Georgia and Texas; perhaps more than one species
included; perhaps varying into the preceding.
Boleosoma gracile Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 103,
Rio Seco and Leona River, Tex.
Pacilichthys bullerianus Hay, Bull. U. S. Fish Com., II, 1882, 61, Big
Black River near Vaughns station, Yazoo County, Miss.
Pacilichthys palustris Gilbert, Proc. U. S. Nat. Mus., VII, 1884, 209,
Switz City Swamp, Greene County, Ind.
- 2284. *Boleichthys eos* (Jordan and Copeland).**
New York to Minnesota.
Boleichthys eos Jordan and Copeland, Proc. Acad. Nat. Sci. Phila.,
XXIX, 1877, 46, Wisconsin and Rock Rivers, Wis.; Fox River, Ill.;
northern Indiana.
- 2285. *Boleichthys exilis* Girard.**
Upper Missouri River Basin and Red River of the North.
Boleichthys exilis Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 103,
Little Muddy River, a tributary of the upper Missouri.
Boleichthys warreni Girard, loc. cit., 104, Cannonball River.
- Genus 779. HOLOLEPIS Agassiz.**
Hololepis Agassiz, in Putnam, Bull. Mus. Comp. Zool., I, 1863, 4
(*Etheostoma barratti* Holbrook).
Copelandellus Jordan and Evermann, Fishes North and Mid. Amer.,
1896, 1100 (*Pacilichthys quiescens* Jordan).
- 2286. *Hololepis barratti* Holbrook.**
Swamps and streams of the lowlands from Virginia to Florida; known
from Blackwater River, Zuni, Va.; Allapaha River, Nashville, Ga.;
and various streams in Florida and South Carolina.
Hololepis barratti Holbrook, Jour. Acad. Nat. Sci. Phila., III, 1855, 56,
South Carolina.
Pacilichthys quiescens Jordan, Proc. U. S. Nat. Mus., VII, 1884, 478,
tributary of Allapaha River, Nashville, Ga.
- Genus 780. MICROPERCA Putnam.**
Microperca Putnam, Bull. Mus. Comp. Zool., I, 1863, 4 (*M. punctulata*
Putnam).
- 2287. *Microperca punctulata* Putnam. *Least darter*.**
Northwestern States; Indiana, Michigan, and Minnesota, south to
Arkansas; rare outside of tributaries of the Great Lakes.
Microperca punctulata Putnam, Bull. Mus. Comp. Zool., I, 1863, 4,
various points in Michigan, Wisconsin, Illinois, and Alabama; those
from Alabama probably *M. praeliarius* (Hay); name preoccupied in
Etheostoma.
Etheostoma microperca Jordan and Gilbert, in Jordan's Man. Vert.,
ed. V, 1888, 134, lakes of Laporte County, Ind., substitute name.
- 2288. *Microperca praeliarius* Hay.**
Alabama and Mississippi; in lowland streams and ponds.
Microperca praeliarius Hay, Proc. U. S. Nat. Mus., III, 1880, 496, small
branch of the Tuscumbia River at Corinth, Miss.
- Genus 781. ALVARIUS Girard.**
Alvarius Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 101 (*A. lateralis*
Girard).
This genus differs from *Microperca* in having but one anal spine. The
fins are short and low and the scales in the type are said to be small.
- 2289. *Alvarius lateralis* Girard.**
Rio Grande about Brazos Santiago, Tex.
Alvarius lateralis Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 101,
mouth of Rio Grande.

2290. *Alvarius fonticola* Jordan and Gilbert.
Arkansas and Texas, in clear rocky streams; known only from Washita River at Arkadelphia; San Marcos River at San Marcos, Tex.; Comal Creek at New Braunfels, Tex.
Alvarius fonticola Jordan and Gilbert, Proc. U. S. Nat. Mus., IX, 1886, 23, San Marcos Spring at San Marcos, Tex.

Family 187. APOGONIDÆ. Cardinal fishes

- Genus 782. APOGON Lacépède.
Amia Gronow, Zoophyl., 1763, 80 (*Apogon moluccensis* Cuvier and Valenciennes); not *Amia* L., nonbinomial
Apogon Lacépède, Hist. Nat. Poiss., III, 1802, 411 (*A. ruber* Lacépède = *Mullus imberbis* L.).
Ostorhinchus Lacépède, loc. cit., IV, 1803, 23 (*O. fleureiu* Lacépède).
Dipterodon Lacépède, loc. cit., 165 (*D. hexacanthus* Lacépède).
Macrolepis Rafinesque, Analyse de la Nat., 1815, 86; a bare name, no type.
Monoprion Poey, Memorias, II, 1861, 123 (*M. maculatus* Poey).
2291. *Apogon imberbis* (Linnaeus). *King of the mullets*; *Alfoncino*; *Fucinita*.
Mediterranean and neighboring waters; one from Newport, R. I., and one from the island of Fernando de Noronha
Mullus imberbis Linnaeus, Syst. Nat., ed. X, 1758, 300, Malta; after Artedi.
Apogon ruber Lacépède, Hist. Nat. Poiss., III, 1802, 411, Malta.
Perca pusilla De la Roche, Ann. Mus. Nat. Hist., XIII, 1809, 318, Nice.
Apogon rex-mullorum Cuvier and Valenciennes, Hist. Nat. Poiss., II, 1828, 105 (143), Marseilles, Nice, Genoa, Naples, Palermo.
2292. *Apogon maculatus* (Poey).
Pensacola to Bahia; recorded from as far north as Woods Hole; common on the "snapper banks"; often found in the stomachs of snappers and groupers.
Monoprion maculatus Poey, Memorias, II, 1861, 123, Cuba.
2293. *Apogon pigmentarius* (Poey).
Cuba; common at Habana.
Monoprion pigmentarius Poey, Memorias, II, 1861, 123, Cuba.
2294. *Apogon sellicauda* Evermann and Marsh.
West Indies; Tortugas Archipelago; Porto Rico.
Apogon sellicauda Evermann and Marsh, Fish. Porto Rico, Bull. U. S. Fish Com., XX, 1900, 143, fig. 40, Culebra Island, Porto Rico.
2295. *Apogon americanus* Castelnau.
Brazil, north to the Tortugas.
Apogon americanum Castelnau, Anim. Amer. Sud, Poiss., 1855, 3, pl. III, fig. 2, Bahia.
2296. *Apogon binotatus* (Poey).
Cuba.
Amia binotata Poey, Repertorio, 1867, 234, Cuba.
2297. *Apogon retrosella* (Gill). *Cardenal*.
Pacific coast of Mexico.
Amia retrosella Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 251, Cape San Lucas.
2298. *Apogon dovii* Günther.
Mazatlan to Panama.
Apogon dovii Günther, Proc. Zool. Soc. Lond., 1861, 371, Panama.
2299. *Apogon atricaudus* (Jordan and McGregor).
Offshore islands, Pacific coast of Mexico.
Apogon atricaudus Jordan and McGregor, Rept. U. S. Fish Com., XXIV, 1898, 277, and in Jordan and Evermann, Fish. North and Mid. Amer., 1898, 2853, Socorro, Clarion, and San Benedicto islands.
2300. *Apogon atrodorsatus* Heller and Snodgrass.
Galapagos Islands.
Apogon atrodorsatus Heller and Snodgrass, Proc. Wash. Acad. Sci., V, 1903, 192, Pl. III, Charles Island.

- 2301. *Apogon guadalupensis*** (Osburn and Nichols).
Guadalupe Island, off Lower California.
Ama guadalupensis Osburn and Nichols, Bull. Amer. Mus. Nat. Hist., XXXV, 1916, 160, fig. 9, Guadalupe Island.
- Genus 783. APOGONICHTHYS** Bleeker.
Apogonichthys Bleeker, Naturkundig Tijds. Nederl.-Indie, Floris, VI, 1854, 321 (*A. perdis* Bleeker).
- 2302. *Apogonichthys alutus*** (Jordan and Gilbert).
Snapper banks off Pensacola and Tampa, Fla.; and at Porto Rico.
Apogon alutus Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 279, and in Synopsis, 1883, 931, snapper banks off Pensacola, Fla.
- 2303. *Apogonichthys puncticulatus*** Poey.
Cuba; Tortugas.
Apogonichthys puncticulatus Poey, Repertorio, II, 1867, 233, Cuba.
- 2304. *Apogonichthys melampodus*** Blosser.
St. Croix Island, West Indies
Apogonichthys melampodus Blosser, Ann. Carnegie Mus., VI, 1909, No. 1, 296, St. Croix.
- Genus 784. ASTRAPOGON** Fowler.
Astrapogon Fowler, Proc. Acad. Nat. Sci. Phila., LXIII, 1906, 527 (*Apogonichthys stellatus* Cope).
- 2305. *Astrapogon stellatus*** (Cope).
Bahamas.
Apogonichthys stellatus Cope, Trans. Amer. Phil. Soc., XIII, 1869, 400, Nassau, Bahama Islands.
Apogonichthys strombi Plate, Zool. Anzeiger, XXXIII, 1908, 393, with plate, Bahamas; living symbiotic in shells of *Strombus gigas*.
- Genus 785. XYSTRAMIA** Jordan.
Xystramia Jordan, Copeia, May 24, 1917, 46 (*Glossamia pandionis* Goode and Bean).
- 2306. *Xystramia pandionis*** (Goode and Bean).
Deep water off Chesapeake Bay.
Apogon pandionis Goode and Bean, Proc. U. S. Nat. Mus., IV, 1881, 160, deep water off Chesapeake Bay.
- Genus 786. EPIGONUS** Rafinesque.
Epigonus Rafinesque, Indice, 1810, 64 (*E. macrophthalmus* Rafinesque).
Pomatomus Risso, in Cuvier and Valenciennes, Hist. Nat. Poiss., II, 1828, 171 (*P. telescopium* Risso); not of Lacépède.
Telescopus Bleeker, Arch. Néerl. Sci. Nat., XI, 1876, 261 (*Pomatomus telescopium* Risso); substitute for *Pomatomus* Cuvier; not of Lacépède.
Pomatomichthys Giglioli, Espos. Int. d. Pesca, Berlin, 1880, 20 (*P. constanciae* Giglioli=*Pomatomus telescopium* Risso).
- 2307. *Epigonus occidentalis*** Goode and Bean.
Deep water off Barbados.
Epigonus occidentalis Goode and Bean, Oceanic Ichth., 1895, 233, off Barbados.
- Genus 787. CHEILODIPTERUS** Lacépède.
Cheilodipterus Lacépède, Hist. Nat. Poiss., II, 1802, 539; restricted by Cuvier and Valenciennes, 1828, to *C. macrodon* Lacépède.
Clodipterus Rafinesque, Analyse Nat., 1815, 86, substitute for *Cheilodipterus* Lacépède; regarded as too long.
Paramia Bleeker, Neder. Tijdschr. Dierk., I, 1863, 233 (*Cheilodipterus lineatus* Lacépède); substitute for *Cheilodipterus* (Lacépède) Cuvier.
- 2308. *Cheilodipterus affinis*** Poey.
Cuba; three specimens known.
Cheilodipterus affinis Poey, Ann. Acad. Nat. Sci. N. Y., XI, 1876, 58, Habana.

Family 188. SCOMBROPIDÆ

Genus 788. SPHYRÆNOPS Poey.

Sphyrænops Poey, *Memorias*, II, 1861, 249 (*S. bairdianus* Poey).

2309. *Sphyrænops bairdiana* Poey.

Deep water of Cuba; one specimen known

Sphyrænops bairdianus Poey, *Memorias*, II, 1861, 350, Cuba.

Genus 789. PARASPHYRÆNOPS Bean.

Parasphyrænops B. A. Bean, *Proc. Biol. Soc. Wash.*, XXV, 1912, 194

(*P. atrimanus* B. A. Bean).

2310. *Parasphyrænops atrimanus* B. A. Bean.

Bermudas.

Parasphyrænops atrimanus B. A. Bean, *Proc. Biol. Soc. Wash.*, XXV, 1912, 194, Bermudas.

Genus 790. LATEBRUS Poey.

Latebrus Poey, *Memorias*, II, 1860, 168 (*L. oculatus* Poey).

2311. *Latebrus oculatus* Poey. *Escolar chino*.

Coast of Cuba; in deep water.

Latebrus oculatus Poey, *Memorias*, II, 1861, 168, with plate, Cuba.

Genus 791. HYPOCLYDONIA Goode and Bean.

Hypoclydonia Goode and Bean, *Oceanic Ichth.*, 1895, 265 (*H. bella* Goode and Bean).

2312. *Hypoclydonia bella* Goode and Bean.

Gulf Stream.

Hypoclydonia bella Goode and Bean, *Oceanic Ichth.*, 1895, 236, Albatross stations 2314, 2397, 2401, 2417, etc., at depths from 90 to 159 fathoms.

Genus 792. AMIICHTHYS Poey.

Amiichthys Poey, in Jordan, *Proc. U. S. Nat. Mus.*, IX, 1886, 586 (*diapterus* Poey, 1861; only the specific name of this fish being published by Poey).

2313. *Amiichthys diapterus* Poey.

Coast of Cuba; two specimens known.

— *diapterus* Poey, *Synopsis*, 1861, 305, Cuba.

Family 189. CENTRARCHIDÆ. Black basses; Sunfishes and pumpkinseeds

Genus 793. HURO Cuvier and Valenciennes. *Large-mouth black bass*. *

?*Nemocampsis*⁵² Rafinesque, *Ichth. Ohiensis*, 1820, 30 (*Lepomis flexuolaris* Raf.).

Huro Cuvier and Valenciennes, *Hist. Nat.*, Poiss., II, 1828, 125 (*H. nigricans* Cuvier and Valenciennes = *Cichla floridana* LeSueur).

2314. *Huro floridana* (LeSueur). *Large-mouthed black bass*; *Oswego bass*; *Green bass*; *Bayou bass*; *Chub*; *Trout*; *Jumper*; *Welshman*; *Achigan grand bouche*; *Achigan noir*; *Big-mouthed black bass*; *Black bass of the Huron*; *Black huron*; *Bride perch*; *Cow bass*; *Dotted paintedtail*; *Fresh-water trout*; *Gray bass*; *Green perch*; *Green trout*; *Growler*; *Huron*; *Lake bass*; *Marsh bass*; *Mullpond chub*; *Moss bass*; *Mud bass*; *Paintedtail*; *Pale river bass*; *Perch*; *River bass*; *Rock bass*; *Salmon-formed growler*; *Slough bass*; *Southern chub*; *Speckled hen*; *Spotted bass*; *Straw bass*; *Striped bass*; *White bass*; *White salmon*; *White trout*; *Yellow bass*; *Yellow pondperch*.

Rivers of the United States from the Great Lakes and Red River of the North to Florida, Texas, and Mexico; west to the Dakotas, Nebraska and Kansas; introduced into lakes and streams of California.

Cichla floridana LeSueur, *Jour. Acad. Nat. Sci. Phila.*, II, 1822, 219, east Florida.

Huro nigricans Cuvier and Valenciennes, *Hist. Nat. Poiss.*, II, 1828, 93 (124), pl. 17, Lake Huron.

Micropterus salmoides of authors; not *Labrus salmoides* Lacépède.

⁵² Except for the phrase "Mouth large," Rafinesque gives no distinctive characters for the young black bass he calls "*Nemocampsis*", but in *Micropterus* the mouth is decidedly large, though smaller than in *Huro*.

Genus 794. MICROPTERUS Lacépède. Black bass.

Micropterus Lacépède, Hist. Nat. Poiss., IV, 325, 1802 (*M. dolomieu* Lacépède).

Callurus Rafinesque, Jour. de Physique, 1819, 420 (*C. punctulatus* Raf.).

Aplites Rafinesque, Ichth. Ohiensis, 1820, 30 (*Lepomis pallida* Raf.).

?*Nemocampsis* Rafinesque, loc. cit., 30 (*Lepomis flexuolaris* Raf.).

Dioplites Rafinesque, loc. cit., 32 (*Lepomis notata* Raf.).

Aplesion Rafinesque, loc. cit., 36 (*Etheostoma callura* Raf.).

- 2315. *Micropterus dolomieu* Lacépède.** *Small-mouthed black bass; Achigan noir; Achigan petite bouche, Bass; Bass hogfish; Black bass; Black fresh-water bass; Black perch; Bronze-backer; Brown bass; Brown trout; Dwarf bass; Gold bass; Green bass, Green perch; Green trout; Hog bass; Jumper, Little bass; Minny bass; Mountain trout, Redeye; River bass; Rock bass; Speckled hen; Spotted river bass; Streaked-cheeked river bass; Streaked lead; Swago bass; Swego; Trout bass; Trout perch; White trout; Yellow bass, Yellow perch.*

Lake Champlain to Manitoba and southward on both sides of the mountains to South Carolina and Arkansas.

Micropterus dolomieu Lacépède, Hist. Nat. Poiss., IV, 1802, 325, type locality uncertain, probably South Carolina.

Labrus salmoides Lacépède, loc. cit., IV, 1802, 716, South Carolina.

Bodianus achigan Rafinesque, Amer. Month Mag., II, 1817, 120, New York.

Callurus punctulatus Rafinesque, Jour. de Physique, 1819, 420, falls of the Ohio River.

Lepomis pallida Rafinesque, Ichth. Ohiensis, 1820, 30, Ohio, Miami, and Hocking Rivers.

Lepomis trifasciata Rafinesque, loc. cit., 31, Ohio River.

?*Lepomis flexuolaris* Rafinesque, loc. cit., 31, Ohio River.

Lepomis salmonea Rafinesque, loc. cit., 32, Kentucky, Green, Licking, and Ohio Rivers.

Lepomis notata Rafinesque, loc. cit., 32, Ohio River.

Etheostoma callura Rafinesque, loc. cit., 36, Ohio River; Salt River, Ky.

Cichla fasciata LeSueur, Jour., Acad. Nat. Sci. Phila., II, 1822, 216, Lake Erie.

Cichla ohiensis LeSueur, loc. cit., 218, Ohio River.

Cichla minima LeSueur, loc. cit., 220, Lake Erie.

Centrarchus obscurus DeKay, New York Fauna: Fishes, 1842, 30, pl. 17, fig. 48, Onondaga Creek, N. Y.

Dioplites variabilis Vaillant and Bocourt, Miss. Sci. Mex., Poissons, 1875-1883, 142, Wabash River, New Harmony, Ind.

- 2316. *Micropterus pseudoplites* Hubbs.** *Kentucky black bass.*

Southeastern United States from western West Virginia northward to southern Ohio, westward to Kansas and central Texas.

Micropterus pseudaplites Hubbs, Proc. Okla. Acad. Sci., Part I, V, Jan 1, 1927, 137, nomen nudum.

Micropterus pseudoplites Hubbs, Occ. Papers, Mus. Zool. Univ. Mich. No. 184, June 29, 1927, 8, Pl. I, figs. 2, 3, and 5, Forbush Creek near Mill Springs, Ky.

Genus 795. APOMOTIS Rafinesque.

Apomotis Rafinesque, Jour. de Physique, LXXXVIII, 1819, 420 (*Lepomis cyanellus* Rafinesque).

Telopomis Rafinesque, Ichth. Ohiensis, 1820, 27 (*Lepomis cyanellus* Rafinesque).

Bryttus Cuvier and Valenciennes, Hist. Nat. Poiss., VII, 454, 461 (*B. punctatus* Cuvier and Valenciennes).

- 2317. *Apomotis cyanellus* (Rafinesque).** *Blue-spotted sunfish; Green sunfish; Little red-eye; Blackeyes; Blackeye sunfish; Blue-and-green sunfish; Blue bass; Bluefish; Blue sunfish; Bream; Buffalo sunfish; Perch; Red-eye; Sunfish; Blanco perch; Wood bass.*

Great Lakes region to Mexico; very abundant from Ohio southwestward to the Rio Grande.

Lepomis cyanellus Rafinesque, Jour. de Physique, LXXXVIII, 1819, 420, Ohio River.

Ichtheis melanops Rafinesque, Ichth. Ohiensis, 1820, 28, Ohio River.

- Pomotis longulus* Baird and Girard, Proc. Acad. Nat. Sci. Phila., VI, 1853, 391, Otter Creek, Ark.
Calliurus diaphanus Girard, Proc. Acad. Nat. Sci. Phila., IX, 1857, 200, Rio Blanco, Tex.
Calliurus formosus Girard, loc. cit., 1857, 200, Arkansas.
Calliurus microps Girard, loc. cit., 200, Rio Brazos, Tex.
Calliurus murinus Girard, loc. cit., 200, Texas.
Bryttus signifer Girard, loc. cit., 201, Rio Medina, Tex.
Bryttus mineopas Cope, loc. cit., XVII, 1865, 84, Whittlesey Lake, Minneapolis, Minn.
2318. *Apomotis euryorus* (McKay).
 Upper Great Lakes region. A form regarded as this occasional in the upper Mississippi.
Lepomis euryorus McKay, Proc. U. S. Nat. Mus., IV, 1881, 89, Lake Huron at Fort Gratiot, Mich. Regarded by Hubbs as a hybrid between *Apomotis cyanellus* and *Eupomotis gibbosus*.
2319. *Apomotis ischyurus* (Jordan and Nelson). *Big-nosed sunfish*.
 Upper Mississippi Valley.
Lepiopotis ischyurus Jordan and Nelson, Bull. U. S. Nat. Mus., X, 1877, 25, Illinois River, Ill. Rare; thought by Hubbs to be a hybrid.
2320. *Apomotis phenax* Cope and Jordan. *Deceptive sunfish*.
 Streams of New Jersey.
Apomotis phenax Cope and Jordan, Bull. U. S. Nat. Mus., X, 1877, 26, Beaseley's Point, N. J.; locality possibly erroneous; rare; thought to be a hybrid.
2321. *Apomotis punctatus* (Cuvier and Valenciennes). *Bream; Chinquapin perch; Spotted bream*.
 South Carolina to Florida.
Bryttus punctatus Cuvier and Valenciennes, Hist. Nat. Poiss., VII, 1831, 347 (462), no locality, probably Charleston, S. C.
Bryttus reticulatus Cuvier and Valenciennes, loc. cit., 348 (463), Charleston, S. C.
Lepomis apiatus Cope, Proc. Amer. Phil. Soc., XVII, 1877, 65, Volusia, Fla.
2322. *Apomotis symmetricus* (Forbes)
 Mississippi Valley; Illinois to Louisiana and Texas.
Lepomis symmetricus Forbes, in Jordan and Gilbert, Synopsis, 1883, 473, Illinois River, Ill.
- Genus 796. *LEPOMIS* Rafinesque. *Sunfishes*.
Lepomis Rafinesque, Jour. de Physique, LXXXVIII, 1819, 420 (*Labrus auritus* Linnæus).
Pomotis Rafinesque, loc. cit., 420 (*Labrus auritus* Linnæus).
Ichthelis Rafinesque, Ichth. Ohiensis, 1820, 27 (*Labrus auritus* Linnæus).
2323. *Lepomis pallidus* (Mitchill).
 New York.
Labrus pallidus Mitchill, Trans. Lit. and Phil. Soc. N. Y., 1815, 407, New York. Misprint for *pallidus*.
Lepomis appendix Mitchill, Amer. Month. Mag., 1818, 247, New York. An uncertain species, perhaps based on *L. auritus*.
2324. *Lepomis auritus* (Linnæus). *Yellowbelly; Redbreast bream; Sunfish; Tobacobo; Long-eared sunfish; Sun perch; Bream; Redbreast; Black-eared pondfish; Flatfish; Flounder; Fresh-water sunfish; Kiver; Leather-eared; Leatherwing; Perch; Quiver; Redbelly; Red-bellied bream; Red-bellied robin perch; Red-headed bream; Red perch; Red sunfish; Red-tailed bream; Red-tailed pomotis; Roach; Robin; Robin perch; Yellow perch; River sunfish; Horned-eared sunfish*.
 Maine to Virginia; abundant in all streams east of the Alleghenies and south of New York.
Labrus auritus Linnæus, Syst. Nat., Ed. X, 1758, 283, Philadelphia.
Bryttus unicolor Cuvier and Valenciennes, Hist. Nat. Poiss., VII, 1831, 348 (464), Philadelphia and Charleston.
Pomotis rubri-cauda Storer, Jour. Boston Soc. Nat. Hist., IV, 1842, 177, Concord, N. H.
Lepomis ophthalmicus Cope, Jour. Acad. Nat. Sci. Phila., VI, 1868, 223, 224, Roanoke River, Va.

2325. *Lepomis mystacalis* Cope.

East Florida

Lepomis mystacalis Cope, Proc. Amer. Phil. Soc., XVII, 1877, 66, east Florida.**2326. *Lepomis solis* (Cuvier and Valenciennes).**

Virginia to Louisiana, in coastwise streams.

Pomotis solis Cuvier and Valenciennes, Hist. Nat. Poiss., 1831, 352 (468), Lake Pontchartrain, La.*Pomotis elongatus* Holbrook, Jour. Acad. Nat. Sci. Phila., III, 1855, 47, pl. 5, fig. 1, St. Johns River, Fla.**Genus 797. *SCLEROTIS* Hubbs.***Sclerotis* Hubbs, Proc. Okla. Acad. Sci., Pt. I, VI, Jan. 1, 1927, 138 (*Lepomis minimus* Jordan)**2327. *Sclerotis miniatus* (Jordan). *Red perch*.**

Mississippi Valley; southern Illinois to Louisiana and Texas.

Lepropomus minimus Jordan, Bull. U. S. Nat. Mus., X, 1877, 26, Tangipahoa River.*Lepomis garmani* Forbes, Bull. Ill. Lab. Nat. Hist., 1885, 135, Little Fox River at Phillipstown and Wabash River and Drew Pond at Carmi, Ill.**Genus 798. *ALLOTIS* Hubbs.***Allotis* Hubbs, Proc. Okla. Acad. Sci., Pt. I, VI, Jan. 1, 1927, 139 (*Bryttus humulus* Girard).**2328. *Allotis humilis* (Girard). *Red-spotted sunfish; Bream; Orange-spotted sunfish; Perch; Sunfish*.**

Ohio and Kentucky to the Dakotas, Kansas, and Texas; locally abundant, especially in the lower Missouri Basin.

Bryttus humilis Girard, Proc. Acad. Nat. Sci. Phila., IX, 1857, 201, Sugar Loaf Creek, Ark.*Bryttus oculatus* Cope, loc. cit., XVII, 1865, 83, Lake Whittlesey, Minn.*Lepomis anagallinus* Cope, Jour. Acad. Nat. Sci. Phila., 2d ser., VI, January, 1869, 221, Leavenworth, Kans.**Genus 799. *XENOTIS* Jordan.***Xenotis* Jordan, Proc. Acad. Nat. Sci. Phila., XXIX, 1877, 76 (*Pomotis fallax* Baird and Girard).**2329. *Xenotis megalotis* (Rafinesque.) *Long-eared sunfish; Big-eared sunfish; Blackears, Black-tailed sunfish; Bloody sunfish; Bream; Brilliant sunfish; Common sunfish; Eared sunfish; Long-scaled sunfish; Perch; Red-bellied bream; Redbelly; Red-eyed sunfish; Small green sunfish; Sun perch*.**

Michigan to Minnesota, South Carolina, and southward to the Rio Grande

Ichthelus megalotis Rafinesque, Ichth. Ohiensis, 1820, 29, Kentucky, Licking, and Sandy Rivers, Ky.*Pomotis nitida* Kirtland, Bost. Jour. Nat. Hist., III, 1840, 472, pl. 28, fig. 1, Mahoning River, Ohio*Pomotis breviceps* Baird and Girard, Proc. Acad. Nat. Sci. Phila., VI, 1853, 390, Otter Creek, Ark.*Pomotis fallax* Baird and Girard, loc. cit., VII, 1854, 24, Elm Creek, Tex.*Pomotis convexifrons* Baird and Girard, loc. cit., 1854, 24, Rio Cibolo, Tex.*Pomotis nefastus* Baird and Girard, loc. cit., 24, Rio Cibolo and Salado Creek, Tex.*Pomotis sanguinolentus* Agassiz, Amer. Jour. Sci. and Arts, XVII, 1854, 301, Huntsville, Ala.*Pomotis inscriptus* Agassiz, loc. cit., 1854, 302, Huntsville, Ala.*Pomotis popei* Girard, Pacific R. R. Surv., X, 1858, 26, headwaters of Colorado River, Tex.*Lepomis peltastes* Cope, Proc. Amer. Phil. Soc., 1870, 454, Huron River, Mich.*Xenotis lythochloris* Jordan, Ann. N. Y. Lyc. Nat. Hist., XI, 1876 (1877), 376, White River.*Xenotis aureolus* Jordan, loc. cit., 376, White River.

2330. *Xenotis occidentalis* (Meek).

Rio Grande Basin in Mexico.

Lepomis occidentalis Meek, Field Col. Mus., Zool., III, 1902, 118, Rio Conchos, Mexico.**Genus 800. HELIOPERCA Jordan.***Heloperca* Jordan, Ann. Lyc. Nat. Hist. N. Y., XI, 1876 (1877), 355 (*Labrus pallidus* Cuvier and Valenciennes; not of Mitchill = *Pomotis incisor* Cuvier and Valenciennes).*Erichæta* Jordan, Klippart's Rept. Fish Com. Ohio, 1876 (1877), 48 (*Pomotis incisor* Cuvier and Valenciennes); uncorrected in proof, reading for *Heloperca*.**2331. *Heloperca incisor* (Cuvier and Valenciennes). Bluegill; Blue bream; Blue sunfish; Copper-nosed bream; Dollardee; Black-eared pondfish; Blue Joe; Blue-mouthed sunfish; Blue perch; Bream; Copper-headed bream; Perch; Sunfish.**

Great Lakes to Florida and the Rio Grande.

Pomotis incisor Cuvier and Valenciennes, Hist. Nat. Poiss., VII, 1831, 350 (466), New Orleans.*Pomotis gibbosus* Cuvier and Valenciennes, loc. cit., 1831, 351 (467), Charleston, S. C.; not of Linnæus.*Pomotis speciosus* Baird and Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 24, Brownsville, Tex.*Pomotis obscurus* Agassiz, Amer. Jour. Sci. Arts, XVII, 1854, 302, Huntsville, Ala.; specimens almost black.*Pomotis luna* Girard, Proc. Acad. Nat. Sci. Phila., IX, 1857, 201, Fort Snelling, Minn.*Lepomis longispinus* Cope, loc. cit., 1865, 83, Leavenworth, Kans.*Lepomis ardesiacus* Cope, Jour. Acad. Nat. Sci. Phila., VI, 1868, 222, Kiskiminitas River, Pa.*Lepomis purpurascens* Cope, Proc. Amer. Phil. Soc., XI, 1870, 454, Yadkin River, N. C.**2332. *Heloperca macrochira* (Rafinesque). Bream; Chain-sided perch; Chain-side; Gilded sunfish; Gold perch; Perch; Sunfish.**

Ohio Valley and southward to Missouri and Kentucky.

Lepomis macrochirus Rafinesque, Jour. de Physique, LXXXVIII, 1819, 420, Ohio, Wabash, Green, and Licking Rivers**2333. *Heloperca nephela* (Cope).**

Western Pennsylvania.

Lepomis nephelus Cope, Jour. Acad. Nat. Sci. Phila., VI, 1868, 222, Kiskiminitas River, western Pennsylvania. Perhaps the same as *H. macrochira*.**2334. *Heloperca marginata* (Holbrook).**

Florida.

Pomotis marginatus Holbrook, Jour. Acad. Nat. Sci. Phila., III, 1855, 49, Pl. VI, fig. 2, St. Johns River, Fla. This and the remaining species here referred to *Heloperca* are of uncertain value and of doubtful relationship.**2335. *Heloperca haplognatha* (Cope).**

Monterey, Nuevo Leon, Mexico.

Lepomis haplognathus Cope, Proc. Amer. Phil. Soc., XXII, 1884 (1885), 168, Monterey, Nuevo Leon, Mexico.**2336. *Heloperca bombifrons* (Agassiz).**

Tennessee River.

Pomotis bombifrons Agassiz, Amer. Jour. Sci. and Arts, XVII, 1854, 303, Huntsville, Ala.**Genus 801. XYSTROPLITES Jordan.***Xystroplites* Jordan, Bull. X, U. S. Nat. Mus., 1877, 24 (*X. gillii* Jordan = *Pomotis pallidus* Agassiz).

2337. *Xystroplites pallidus* (Agassiz).

Georgia to Texas.

Pomotis pallidus Agassiz, Amer. Jour. Sci. Arts, 1854, 303 (name pre-occupied in *Lepomis* by *Labrus palladus* Mitchill, but not in *Eupomotis*).

Bryttus albulus Girard, Proc. Acad. Nat. Sci. Phila., IX, 1857, 200, Rio Blanco, Tex.

Xystroplites gilli Jordan, Bull. U. S. Nat. Mus., X, 1877, 24, "Garden Key, Florida"; evidently an error, as there is no fresh-water stream on Garden Key.

Lepomis lirus McKay, Proc. U. S. Nat. Mus., IV, 1881, 89; name a substitute for *pallidus*.

Genus 802. EUPOMOTIS Gill and Jordan.

Eupomotis Gill and Jordan, Field and Forest, II, 1877, 190 (*Sparus aureus* Walbaum = *Perca gibbosa* Linnæus).

2338. *Eupomotis heros* (Baird and Girard).

Southern Illinois, Indiana, and Ohio to Florida and the Rio Grande Basin.

Pomotis heros Baird and Girard, Proc. Acad. Nat. Sci. Phila., VII, March, 1854, 25, Rio Cibolo, Tex.

Pomotis notatus Agassiz, Amer. Jour. Sci. and Arts, XVII, 1854, 302, Huntsville, Ala.

2339. *Eupomotis holbrookii* (Cuvier and Valenciennes). Yellow bream; Shellcracker; Strawberry bass; Branch perch.

Virginia to Florida.

Pomotis holbroeckii Cuvier and Valenciennes, Hist. Nat. Poiss., VII, 1831, 350 (466), Charleston, S. C. Misprint for *holbrookii*.

Pomotis speciosus Holbrook, Jour. Acad. Nat. Sci. Phila., III, 1855, 48, pl. 5, fig. 2, St. Johns River, Fla.; not of Baird and Girard.

Pomotis microlophus Gunther, Cat., I, 1859, 264, St. Johns River, Fla.

2340. *Eupomotis longimanus* (Cope).

Florida to Alabama.

Xystroplites longimanus Cope, Proc. Amer. Phil. Soc., XVII, 1877, 66, Volusia and Port Bay, Fla. Perhaps identical with *E. holbrookii*.

2341. *Eupomotis gibbosus* (Linnæus). Common sunfish; Bream; Pumpkinseed; Sunfish; Sunny; Crapet jaune; Female perch; Flatfish; Flounder; Harlequin roach; Kuer; Northern pomotis; Perch; Pond perch; Quiver; Redbelly; Roach; Robin; Robin perch; Ruff; Sand perch; Sun bass; Tobaccobox; Yellowbelly; Yellow perch.

Great Lakes region to Maine and southward to Florida, east of the Alleghenies.

Perca gibbosa Linnæus, Syst. Nat., Ed. X, 1758, 293, Carolinas; after *Perca fluviatilis gibbosa, ventre luteo*, of Catesby.

Sparus aureus Walbaum, Artedi Pisc., 1792, 290, lakes of New York.

Morone maculata Mitchill, Fishes of New York, 1814, 18, near New York City.

Pomotis vulgaris Cuvier and Valenciennes, Hist. Nat. Poiss., III, 1829, 67 (91), Lake Huron, New York, Virginia, and the Carolinas.

Pomotis ravenelii Cuvier and Valenciennes, loc. cit., VII, 1831, 349 (465), Philadelphia.

Pomotis catesbei Cuvier and Valenciennes, loc. cit., 352 (469), Philadelphia.

Genus 803. CHÆNOBRYTTUS Gill.

Chænobryttus Gill, Amer. Jour. Sci. Arts, XXXVII, 1864, 92 (*Calliurus melanops* Girard = *Pomotis gulosus* Cuvier and Valenciennes).

Glossoplites Jordan, Man. Vert., ed. 1, 1876, 223 (*Calliurus melanops* Girard).

2342. *Chænobryttus gulosus* (Cuvier and Valenciennes). Warmouth; Goggle-eye; Bugmouth; Big-mouthed sunfish; Black sunfish; Black warmouth; Bream; Buffalo bass; Chub; Jugmouth; Moremouth bream; Mud chub; Perch; Perchmouth bream; Redeye; Sac-a-lait, Sunfish; Sun trout; Warmouth perch; Warmouth bream; Wide-mouthed sunfish; Yawmouth perch; Indianfish.

Eastern United States, from the Great Lakes to Florida and Texas, west to Kansas and the Dakotas; chiefly west or south of the Alleghenies; common in South Carolina.

Pomotis gulosus Cuvier and Valenciennes, Hist. Nat. Poiss., III, 1829, 367 (498), Lake Pontchartrain and lagoons about New Orleans.

Calliurus floridensis Holbrook, Jour. Acad. Nat. Sci. Phila., III, 1855, 53, Pl. VI, fig 1, St. Johns River, Fla.

Calliurus melanops Girard, Proc. Acad. Nat. Sci. Phila., IX, 1857, 200, Texas.

Lepomis gillis Cope, Jour. Acad. Nat. Sci. Phila., VI, 1868, 222, 225, Texas.

Lepomis charybdis Cope, loc. cit., 223, Texas.

Chenobryttus antistius McKay, Proc. U. S. Nat. Mus., IV, 1881, 88, Lake Michigan.

Genus 804. AMBLOPLITES Rafinesque. Rock basses.

Ambloplites Rafinesque, Ichth. Ohiensis, 1820, 33 (*Lepomis ichtheloides* Rafinesque = *Bodianus rupestris* Rafinesque).

2343. *Ambloplites rupestris* (Rafinesque). *Common rock bass; Redeye, Goggle-eye; Redeye perch; Bream; Bronzed centrarchus; Crapet mondoux; Crapet noir; Crapet vert; Fresh-water bass; Lake bass; Red-eyed bream; Red-eyed sunfish; Sunfish; Sunfish bass; Sun perch, White bass.*

Vermont to Great Lakes region and Manitoba, south to Louisiana; very abundant west of the Alleghenies.

Bodianus rupestris Rafinesque, Amer. Month Mag., II, 1817, 120, Lakes of New York, Vermont, and Canada

Ichthelis erythrops Rafinesque, Ichth. Ohiensis, 1820, 29, Ohio River.

Lepomis ichteloides Rafinesque, loc. cit., 32, Ohio River.

Cichla xenea LeSueur, Jour. Acad. Nat. Sci. Phila., II, 1822, 214, Lake Ontario.

Centrarchus pentacanthus Cuvier and Valenciennes, Hist. Nat. Poiss., III, 1829, 65 (88), Wabash River.

2344. *Ambloplites cavifrons* Cope. *Southern rock bass.*

Roanoke River, Va.

Ambloplites cavifrons Cope, Jour. Acad. Nat. Sci. Phila., VI, 1868, 217, Roanoke River, Va.

Genus 805. ARCHOPLITES Gill.

Archoplites Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 165 (*Centrarchus interruptus* Girard).

2345. *Archoplites interruptus* (Girard). *Sacramento perch.*

Sacramento and San Joaquin Rivers, Calif.

Centrarchus interruptus Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 129, San Joaquin and Sacramento Rivers, Calif.

Centrarchus maculosus Ayres, Proc. Calif. Acad. Nat. Sci., I, 1854, 7, Sacramento River.

Genus 806. ACANTHARCHUS Gill.

Acantharchus Gill, Amer. Jour. Sci. Arts, XXXVI, 1864, 92 (*Centrarchus pomotis* Baird).

2346. *Acantharchus pomotis* (Baird). *Mud sunfish; Bass sunfish; Mud bass; Mud perch.*

Southern New York to South Carolina.

Centrarchus pomotis Baird, Ninth Smiths. Rept., 1855, 325, New Jersey, New York.

Genus 807. MESOGONISTIUS Gill.

Mesogonistius Gill, Amer. Jour. Sci. Arts, XXXVII, 1864, 92 (*Pomotis chætodon* Baird).

2347. *Mesogonistius chætodon* (Baird). *Black-banded sunfish.*

New Jersey to Maryland.

Pomotis chætodon Baird, Ninth Smiths. Rept., 1855, 324, Cedar Swamp Creek, N. J.

Genus 808. ENNEACANTHUS Gill.

Enneacanthus Gill, Amer. Jour. Sci. Arts, XXXVII, 1864, 92 (*Pomotis obesus* Baird).

Hemiplites Cope, Jour. Acad. Nat. Sci. Phila., 2d ser., VI, 1868, 217 (*H. simulans* Cope=*Enneacanthus gloriosus*; abnormal example with A. IV, the dorsal erroneously stated to be X.
Copelandia Jordan, Proc. Acad. Nat. Sci. Phila., XXIX, 1877, 56 (*C. eriarcha* Jordan, an abnormal example with D. X; A. IV, of *Enneacanthus gloriosus*).

2348. *Enneacanthus obesus* (Girard). *Banded sunfish; Little bream; Little sunfish; Spotted sunfish; Rock sunfish.*

Charles River, Mass., to Florida.

Pomotis obesus Girard, Proc. Bost. Soc. Nat. Hist., V, 1854, 40, waters about Hingham and in branch of Charles River at Holliston, Mass.

Bryttus fasciatus Holbrook, Jour. Acad. Nat. Sci. Phila., III, 1855, 51, Pl. V, fig. 3, St. Johns River, Fla.

Pomotis guttatus Morris, Proc. Acad. Nat. Sci. Phila., XI, 1859, 3, Delaware River, Philadelphia.

2349. *Enneacanthus gloriosus* (Holbrook). *Blue-spotted sunfish; Little sunfish; Spotted-finned sunfish; Spotted sunfish.*

Atlantic States; New York to Florida.

Bryttus gloriosus Holbrook, Jour. Acad. Nat. Sci. Phila., III, 1855, 52, Pl. V, fig. 4, Cooper River, S. C.

Hemiplites simulans Cope, Jour. Acad. Nat. Sci. Phila., VI, 1868, 217, Tuckahoe Creek near Richmond, Va.; abnormal examples.

Enneacanthus pinniger Gill and Jordan, Bull. U. S. Nat. Mus., X, 1877, 27, Tar River, Kinston, N. C.

Enneacanthus margaritis Gill and Jordan, loc. cit., 28, Beaseleys Point, N. J.

Copelandia eriarcha Jordan, Proc. Acad. Nat. Sci. Phila., XXIX, 1877, 56, Menominee River, Wis.; evidently an error, an abnormal example; the locality for New Jersey.

Genus 809. CENTRARCHUS Cuvier and Valenciennes. *Round basses.*

Centrarchus Cuvier and Valenciennes, Hist. Nat. Poiss., III, 1829, 62 (84) (*Labrus irideus* Lacépède=*Labrus macropterus* Lacépède).

2350. *Centrarchus macropterus* (Lacépède). *Round sunfish; Flier; Flying perch; Large-finned bass; Long-finned sunfish; Many-spined sunfish; Millpond perch; Perch; Round bass; Sac-a-lait; Shinning bass; Sunfish.*

Lowland streams from Virginia southward to Florida and Louisiana; northward in the Mississippi Valley to southern Illinois.

Labrus macropterus Lacépède, Hist. Nat. Poiss., III, 1802, 432, Charleston, S. C.

Labrus irideus Lacépède, loc. cit., IV, 716, Charleston, S. C.

Genus 810. POMOXIS Rafinesque. *Crappies.*

Pomoxis Rafinesque, Amer. Month. Mag., IV, 1818, 41 (*Pomoxis annularis* Rafinesque).

Hyperistius Gill, Amer. Jour. Sci. Arts, 1864, 92 (*Centrarchus hexacanthus* Cuvier and Valenciennes=*Labrus sparoides* Lacépède).

Subgenus POMOXIS Rafinesque.

2351. *Pomoxis annularis* Rafinesque. *Crappie; Bachelor; Sac-a-lait; New-light; Campbellite; Crapet; Bachelor perch; Bridge perch; Chinquapin perch; Goggle-eye; Goldring; John demon; Pale crappie; Papermouth; Shad; Silver perch; Speckled perch; Strawberry perch; Suckley perch; Timber crappie; Tinmouth; Tin perch; White crappie, White perch.*

Eastern United States, from the Great Lakes south to Texas and west to Kansas and Nebraska. Introduced into Columbia River and other waters on the Pacific coast.

Pomoxis annularis Rafinesque, Amer. Month. Mag., IV, 1818, 41, falls of the Ohio River.

Cichla storeria Kirtland, Rept., Zool. Ohio, 1838, 191, Ohio River.

Pomoxis nitidus Girard, Proc. Acad. Nat. Sci. Phila., IX, 1857, 200, Houston River, Ky.

Pomoxys brevicauda Gill, loc. cit., XVII, 1865, 64, North Grand River, Mo.

Pomoxys intermedius Gill, loc. cit., 65, no locality.

Pomoxys prolacanthus Gill, loc. cit., 66, Tarboro, N. C.

Subgenus **HYPERISTIUS** Gill.

- 2352. *Pomoxis sparoides* (Lacépède).** *Calico bass; Grass bass; Barfish; Strawberry bass; Bachelor; Banklick bass; Butterhead, Calico bream; Chunquapin perch; Crapet; Crappie, Dolly Varden; Goggle-eye; Lake bass; Lake Erie bass; Millpond fluer; Razorback; Roach; Rockfish; Sand perch; Silver bass, Silver perch; Speckled bass; Spotted perch; Spotted trout; Straw bass; Sun perch; Tinmouth; White perch; Black crappie.*

Great Lakes and upper Mississippi Valley to New Jersey and southward to Florida, Louisiana, and Texas. Introduced into Pacific coast streams. *Lábrus sparoides* Lacépède, Hist. Nat. Poiss., III, 1802, 517 and 518, South Carolina.

Cantharus nigro-maculatus LeSueur, in Cuvier and Valenciennes, Hist. Nat. Poiss., III, 1829, 65 (88), Wabash River.

Centrarchus hexacanthus Cuvier and Valenciennes, Hist. Nat. Poiss., VII, 1831, 344 (459), Charleston, S. C.

Hyperistius carolinensis Gill, Amer. Jour. Sci. Arts, XXXVI, 1864, 93, South Carolina.

Family 190. **ELASSOMIDÆ**Genus 811. **ELASSOMA** Jordan.

Elassoma Jordan, Bull. U. S. Nat. Mus., X, 1877, 50 (*E. zonata* Jordan). *Elassosoma* Boulenger; attempted correction but the name is from *ἐλάσσωμα*, a diminution.

- 2353. *Elassoma zonatum* Jordan** *Pigmy sunfish.*

Southern Illinois to Texas and Alabama.

Elassoma zonata Jordan, Bull. U. S. Nat. Mus., X, 1877, 50, Little Red River, White County, Ark.

- 2354. *Elassoma evergladei* Jordan.** *Everglades pigmy sunfish.*

Swamps of southern Georgia and Florida, locally common in dark waters tributary to the Everglades.

Elassoma evergladei Jordan, Proc. U. S. Nat. Mus., VII, 1884, 323, St. Johns and Suwanee Rivers, Fla.

Family 191. **KUHLIDÆ.** Mountain bass; SeseleGenus 812. **SAFOLE** Jordan.

Safole Jordan, Proc. U. S. Nat. Mus., XLII, 1912, 655 (*Dules tæniurus* Cuvier and Valenciennes).

- 2355. *Safole tæniura* (Cuvier and Valenciennes).**

Galapagos and Revillagigedo archipelagoes; locally common; South Seas and Hawaii to Japan; throughout the warm parts of the Pacific, in the open sea, away from coral reefs; not in California.

Dules tæniurus Cuvier and Valenciennes, Hist. Nat. Poiss., III, 1829, 85 (114), Java.

Kuhlia arge Jordan and Bollman, Proc. U. S. Nat. Mus., XII, 1889, 159, Chatham Island, Galapagos.

Family 192. **CENTROPOMIDÆ.** RobalosGenus 813. **CENTROPOMUS** Lacépède. *Robalos.*

Centropomus Lacépède, Hist. Nat. Poiss., IV, 1802, 248 (*Lucioperca undecimalis*, etc.; restricted to *Scæna undecimalis* Bloch by Cuvier and Valenciennes).

Oxylabrax Bleeker, Archiv Neerl., XI, 1876, 264 (same type *Centropomus* being restricted to the first species named by Lacépède).

- 2356. *Centropomus undecimalis* (Bloch).** *Robalo; Sergeantfish; Snook; Brochet de mer.*

Coasts of Florida and Texas, southward among the West Indies to Surinam or beyond; Bay of Panama.

Scæna undecimalis Bloch, Naturgeschich. Ausl. Fische, VI, 1792, 60, Jamaica.

Centropomus undecim-radiatus Lacépède, Hist. Nat. Poiss., IV, 1802, 268; after Bloch.

Perca loubina Lacépède, loc. cit., 397, Cayenne.

Sphyræna aureoviridis Lacépède, loc. cit., V, 1803, 324, Martinique.

Centropomus appendiculatus Poey, Memoriae, II, 1860, 119, Cuba.

2357. *Centropomus viridis* Lockington. *Robalo*.
Pacific coast of Mexico; common from Gulf of California to Panama.
Centropomus viridis Lockington, Proc. Calif. Acad. Sci., VII, 1876 (1877), 110, off Ascension Island, Lower California. Probably not separable from *C. undecimalis*.
2358. *Centropomus nigrescens* Gunther. *Robalo prieto*.
Pacific coast of tropical America; generally common from Mazatlan to Panama.
Centropomus nigrescens Gunther, Proc. Zool. Soc. Lond., 1864 (Mar. 22), 144, Chiapam.
2359. *Centropomus pedimacula* Poey. *Constantino de las aletas prietas*;
Robalito de las aletas prietas
Both coasts of tropical America; common in Cuba; Jamaica; south to Brazil.
Centropomus pedimacula Poey, Memorias, II, 1860, 122, Habana and Cienfuegos, Cuba.
Centropomus medius Gunther, Proc. Zool. Soc. Lond., 1864, 144, Chiapam.
Centropomus cuvieri Bocourt, Ann. Sci. Nat. Paris, IX, 1868, 91, Haiti.
Centropomus grandoculatus Jenkins and Evermann, Proc. U. S. Nat. Mus., XI, 1888, 139, Guaymas, Sonora. Probably distinct.
2360. *Centropomus parallelus* Poey.
Coasts of Cuba; San Domingo, Jamaica, Barbados, and Rio Chagres; Guiana, Pernambuco, and Bahia; Porto Rico.
Centropomus parallelus Poey, Memorias, II, 1861, 120, Habana and Cienfuegos, Cuba.
Centropomus mexicanus Bocourt, Ann. Sci. Nat. Paris, IX, 1868, 90, Gulf of Mexico.
2361. *Centropomus pectinatus* Poey.
Coasts of Cuba.
Centropomus undecimalis Cuvier and Valenciennes (part; not of Bloch), Hist. Nat. Poiss., II, 1828, 102 (*Centropomus pectinatus* Poey, Memorias, II, 1861, 121; Habana and Cienfuegos, Cuba).
2362. *Centropomus unionensis* Bocourt
Pacific coast of Central America; rather common at Panama.
Centropomus unionensis Bocourt, Ann. Sci. Nat. Paris, IX, 1868, 90, La Union, San Salvador.
2363. *Centropomus armatus* Gill.
Pacific coast of Central America; common from Chiapas to Panama.
Centropomus armatus Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 163, Panama.
2364. *Centropomus robalito* Jordan and Gilbert. *Constantino*; *Robalito las aletas amarillas*
Pacific coast of Mexico, from Mazatlan to Panama.
Centropomus robalito Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 462, Mazatlan; Acapulco.
2365. *Centropomus ensiferus* Poey.
West Indies; generally common from Cuba to Surinam.
Centropomus ensiferus Poey, Memorias, II, 1861, 122, Habana.
? *Centropomus brevis* Günther, Proc. Zool. Soc. Lond., 1864, 145, locality unknown, tropical America.
Centropomus affinis Steindachner, Ichth. Notizen, I, 1864, 1, pl. 1, fig. 1, Rio Janeiro and Cajutuba; Demerara, Guiana.
Centropomus scaber Bocourt, Ann. Sci. Nat., 5 ser., IX, 1868, 90, marshes of Belize.

Family 193. MORONIDÆ. White bass

Genus 814. ROCCUS Mitchill. *Striped bass.*

Roccus Mitchill, Fishes of New York, 1814, 24 (*R. striatus* Mitchill = *Sciaena lineata* Bloch).

2366. *Roccus saxatilis*⁵³ (Walbaum) *Striped bass; Rockfish; Rock; Mis-sucke-ke-kequoock.*

Atlantic coasts of North America from New Brunswick to Escambia River, Fla.; introduced by the U. S. Fish Commission into Sacramento River, Calif.

Perca saxatilis Walbaum, Artedi Gen. Pisc., 1792, 330, New York.

Perca septentrionalis Bloch and Schneider, Systema Ichthyol., 1801, 90, New York.

Roccus striatus Mitchill, Rep. Fishes N. Y., 1814, 24, New York.

Perca mitchilli Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 413, pl. 3, fig. 4, New York.

Perca mitchilli alternata Mitchill, loc. cit., 415, New York.

Perca mitchilli interrupta Mitchill, loc. cit., 415, New York.

Genus 815. LEPIBEMA Rafinesque.

Lepibema Rafinesque, Ichth. Ohiensis, 1820, 23 (*Perca chrysops* Rafinesque).

2367. *Lepibema chrysops* (Rafinesque). *White bass; White lake bass; sometimes silver bass at Sandusky, Ohio.*

Great Lakes region, upper Mississippi and Ohio Valleys, south to Washita River.

Perca chrysops Rafinesque, Ichth. Ohiensis, 1820, 22, falls of the Ohio.

Labrax multilineatus Cuvier and Valenciennes, Hist. Nat. Poiss., III, 1830, 360 (488), Wabash River.

Labrax notatus Richardson, Fauna Bor.-Amer., III, 1836, 8, lower St. Lawrence River.

Labrax albidus DeKay, N. Y. Fauna: Fishes, 1842, 13, pl. 51, fig. 165, Buffalo, N. Y.

Labrax osculatus Filippi, Rev. et. Mag. de Zoologie, 2d series, V, 1853, 164, Canada.

Genus 816. CHRYSOPERCA Fowler.

Chrysoperca Fowler, Proc. Acad. Nat. Sci. Phila., LIX, 1907, 250 (*Morone interrupta* Gill).

2368. *Chrysoperca interrupta* (Gill). *Yellow bass.*

Lower Mississippi Valley north to Cincinnati, Terre Haute, and St. Louis.

Morone interrupta Gill, Proc. Acad. Nat. Sci. Phila., XII, 1860, 118, St. Louis; New Orleans.

Morone mississippiensis Jordan and Eigenmann, Proc. Acad. Nat. Sci. Phila., XXXIX, 1887, 295; substitute for *Morone interrupta*, preoccupied in *Roccus*, not in *Morone* nor in *Chrysoperca*.

Genus 817. MORONE Mitchill. *White perch.*

Morone Mitchill, Fishes of New York, 1814, 17 (*M. pallada* Mitchill = *Perca americana* Gmelin).

2369. *Morone americana* (Gmelin). *White perch; Silver perch; Sea perch.*

Atlantic coast of North America from Nova Scotia to South Carolina in brackish water, ascending streams, and frequently landlocked in ponds.

Perca americana Gmelin, Syst. Nat., I, III, 1789, 1308, New York; after Schöpl.

Perca immaculata Walbaum, Artedi Genera Piscium, 1792, 330, New York; after Schöpl.

Morone rufa Mitchill, Rep. Fishes N. Y., 1814, 18, New York.

Morone pallada Mitchill, loc. cit., 17, New York.

?*Centropomus albus* Rafinesque, Précis des Découvertes Somnolog., 1814, 19, Philadelphia.

⁵³ This species is usually called *Roccus lineatus* after *Sciaena lineata* Bloch (Ausländische Fische, VI, 1792, 62), but it can not be the same. The form, serrae of the preopercle, and the stout spines of the fin, as well as the asserted locality ("Mediterranean") indicate that the species concerned is *Dicentrarchus lupus* of Europe. The only resemblance to *Roccus* is found in the striped color, but Bloch says that the stripes on the sides are yellow.

- Perca mucronata* Rafinesque, Amer. Month. Mag. and Crit. Rev., II, 1818, 204, Delaware, Schuylkill, and Susquehanna Rivers.
Labrax migrans DeKay, Nat. Hist. N. Y., Fishes, 1842, 12, pl. 50, fig. 160, Long Island.

Family 194. EPINEPHELIDÆ. Sea basses, groupers, garrupas, etc.

Genus 818. STEREOLEPIS Ayres. Jewfishes.

Stereolepis Ayres, Proc. Calif. Acad. Nat. Sci., II, 1859, 28 (*S. gigas* Ayres).

Megaperca Hilgendorf, Sitzb. Gesell. Naturf. Freunde, Berlin, 1878, 155 (*M. shinaga* Hilgendorf).

2370. *Stereolepis gigas* Ayres. California jewfish.

Coast of California, north to the Farallons.

Stereolepis gigas Ayres, Proc. Calif. Acad. Nat. Sci., II, 1859, 28, southern California.

Stereolepis californicus Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 330, California; substitute for *S. gigas*, supposed to be preoccupied in this genus.

Genus 819. POLYPRION Cuvier. Wreckfishes.

Polyprion Cuvier, Règne Animal, ed. 1, II, 1817, 282 (?*Amphiprion americanus* Bloch and Schneider).

2371. *Polyprion americanus* (Bloch and Schneider). Wreckfish; Stone bass; Cernier.

Gulf stream; Grand Banks and New Jersey; also in Europe if *P. massiliensis* is the same, which is not certain.

Amphiprion americanus Bloch and Schneider, Syst. Ichth., 1801, 205, pl. 47; based on a drawing sent by Latham to Schneider representing some fish called in America "Grom"; called *Amphiprion australis* on pl. 47.

?*Scorpaena massiliensis* Risso, Ichth. Nice, 1810, 184, Marseilles.

?*Polyprion cernium* Cuvier, Mém. du Museum, XI, 1824, 265, Pl. XVII, France.

?*Holocentrus gulo* Risso, Europe Mérid., III, 1826, 367, Nice.

?*Serranus couchus* Yarrell, British Fishes, ed. 1, I, 1836, 12, Great Britain.

Genus 820. GONIOPECTRUS Gill. Spanish flags.

Gonioplectrus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 236, 237 (*Plectropoma hispanum* Cuvier and Valenciennes).

2372. *Gonioplectrus hispanus* (Cuvier and Valenciennes). Spanish flag; Ouatilibi espagnol; Brajaiba de lo alto.

West Indies; Cuba.

Plectropoma hispanum Cuvier and Valenciennes, Hist. Nat. Poiss., II, 1828, 298 (396), Martinique.

Genus 821. PETROMETOPON Gill. Enjambre.

Petrometopon Gill, Proc. Acad. Nat. Sci. Phila., XVII, 1865, 105 (*Perca guttatus* Poey = *Sparus cruentatus* Lacépède).

2373. *Petrometopon cruentatus* (Lacépède). Enjambre; Coney; Rock hind.
 West Indian fauna, Brazil to Florida Keys; very common on Cuba coast.

Sparus cruentatus Lacépède, Hist. Nat. Poiss., IV, 1802, 156, Martinique; on a copy of Plumier's drawing.

?*Perca guttata* Bloch, Ichthyol., 1792, 312, Martinique, not of Linnæus.

Saranus apiarius Poey, Memorias, II, 1861, 143, Habana.

2374. *Petrometopon cruentatus coronatus* (Cuvier and Valenciennes). Brown hind; Petite nègre.

West Indies, north to Key West.

Serranus coronatus Cuvier and Valenciennes, Hist. Nat. Poiss., II, 1828, 278 (371), Martinique.

2375. *Petrometopon panamensis* (Steindachner).

Panama.

Serranus panamensis Steindachner, Ichth. Beitr., IV, 1875, 1, with plate, Panama.

Genus 822. CEPHALOPHOLIS Bloch and Schneider.

Cephalopholis Bloch and Schneider, Syst. Ichth., 1801, 311 (*C. argus* Bloch and Schneider).

Urophæton Swainson, Nat. Hist. Fish., Amphib., etc., II, 1839, 202 (*Serranus*⁵⁴ *phaeton* Cuvier and Valenciennes = *U. microleptes* Swainson).

Enneacentrus Gill, Proc. Acad. Nat. Sci. Phila., XVII, 1865, 105 (*Serranus ouatalibi* Cuvier and Valenciennes = *Labrus fulvus* Linnæus).

Bodianus Bloch, in part, restricted by Cuvier and Valenciennes to *Bodianus guttatus*, etc., later restricted to *Bodianus bodianus* = *Harpe rufa* through tautonymy.

- 2376. *Cephalopholis fulvus***⁵⁵ (Linnæus) *Guatwere*; *Niggerfish*; *Yellowfish*; *Butterfish*; *Lemon-yellow butterfish*; *Guatwere amarilla*.

West Indies; Bermuda and Florida Keys to Bahia.

Labrus fulvus Linnæus, Syst. Nat., Ed. X, 1758, 287, Bahamas; after Catesby.

Guatwere amarilla Parra, Descr. Dif. Piezas, Hist. Nat. Cuba, 8 lam., V, 1787, fig. 2, Cuba.

Holocentrus auratus Bloch, Naturgesch. Ausl. Fische, IV, 1790, 75, East Indies.

Bodianus guatwere Bloch and Schneider, Syst. Ichth., 1801, 336 (after Parra's figure).

- 2377. *Cephalopholis fulvus ruber*** (Bloch and Schneider). *Red guatwere*; *Ouatlibi*; *Rock hind*.

West Indies, etc.; very common.

Gymnocephalus ruber Bloch and Schneider, Syst. Ichth., 1801, 346, pl. 67, on *Carauna* of Marcgrave; not *Epinephelus ruber* Bloch.

Serranus ouatalibi Cuvier and Valenciennes, Hist. Nat. Poiss., II, 1828, 286 (381), Habana.

Serranus carauna Cuvier and Valenciennes, loc. cit., 288 (384), no locality given.

- 2378. *Cephalopholis fulvus punctatus*** (Linnæus). *Niggerfish*; *Negrofish*; *Black guatwere*.

West Indies, etc.; everywhere common.

Perca punctata Linnæus, Syst. Nat., ed. X, 1758, 291, Bahamas; based on Catesby.

- 2379. *Cephalopholis stellatus*** (Blosser).

St. Croix.

Bodianus stellatus Blosser, Ann. Carnegie Mus., VI, 1909, 297, St. Croix.

- 2380. *Cephalopholis tæniops*** (Cuvier and Valenciennes)

West coast of Africa, straying to Florida.

Serranus tæniops Cuvier and Valenciennes, Hist. Nat. Poiss., II, 1828, 277 (370), Cape Verde Islands.

Genus 823. MENEPHORUS Poey.

Menephorus Poey, Ann. Lyc. Nat. Hist. N. Y., X, 1871, 50 (*Serranus dubius* Poey).

- 2381. *Menephorus dubius*** (Poey).

Cuba.

Serranus dubius Poey, Memorias, II, 1861, 142, Cuba.

- 2382. *Menephorus punctiferus*** (Poey).

Cuba.

Menephorus punctiferus Poey, Enumeratio, 1875, 21, Habana.

Genus 824. ENNEISTUS Jordan and Evermann.

Enneistus Jordan and Evermann, Fishes North and Mid. Amer., 1896, 1147 (*Bodianus acanthistius* Gilbert).

- 2383. *Enneistus acanthistius*** (Gilbert).

Cape Lobos, eastern shore of Gulf of California.

Bodianus acanthistius Gilbert, Proc. U. S. Nat. Mus., XIV, 1891, 552, Cape Lobos, eastern shore of Gulf of California at *Albatross* station 3017, in 58 fathoms.

⁵⁴ A spurious species, *Cephalopolis nigripinnis* to which the tail of a *Fistularia* had been attached

⁵⁵ The various forms here treated as subspecies seem to inhabit varying depths of water and should be regarded rather as forms of *C. fulvus*.

Genus 825. EPINEPHELUS Bloch. Groupers.

- Epinephelus* Bloch, Nat. Ausl. Fische, VII, 1793, 11 (*E. marginalis*).
Cerna Bonaparte, Introd. Fauna Italica, III, 1833, pt. 1 (*Perca gigas* Brunnich).
Cromileptes Swainson, Nat. Hist. Fish., Amphib., etc., II, 1839, 201 (*Serranus altivelis* Cuvier and Valenciennes).
Cymatichthys Swainson, loc. cit., 201 (*Perca flavopurpurea* Bennett = *Holocentrus flavoceruleus* Lacépède).
Hyporthodus Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 98 (*Serranus niveatus* Cuvier and Valenciennes).
Labroperca Gill, loc. cit., XIV, 1862, 236 (*Serranus labryformis* Jenyns).
Schistorus Gill, loc. cit., 237 (*Serranus mystacinus* Poey).
Merus Poey, Ann. Lyc. Nat. Hist. N. Y., X, 1871, 39 (*Serranus gigas* Cuvier and Valenciennes).
Pracanthichthys Day, Proc. Zool. Soc. Lond., 1868, 193 (*P. maderaspatensis* Day = *Epinephelus latefasciatus* Temminck and Schlegel).
Homalagrystes Alleyne and Macleay, Proc. Linn. Soc. New South Wales, 1877, 268 (*H. guentheri* Alleyne and Macleay).
Hyposerranus Klunzinger, Fische des Rothen Meeres, 1884, 3 (*Serranus morrhua* Cuvier and Valenciennes).

Subgenus SCHISTORUS Gill.**2384. *Epinephelus mystacinus* (Poey). *Cherna de lo alto*.**

- West Indies south to Brazil.
Serranus mystacinus Poey, Memorias, I, 1852, 52, Tab. 10, fig. 1, Cuba.

Subgenus EPINEPHELUS Bloch.**2385. *Epinephelus analogus* Gill. *Cabrilla pinta*.**

- Pacific coast of tropical America; common on coast of Mexico.
Epinephelus analogus Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 163, Panama.
 ?*Serranus courtader* Bocourt, Ann. Sci. Nat. Paris, X, 1868, 222, La Union, San Salvador.

2386. *Epinephelus adscensionis* (Osbeck). *Rock hind; Cabra mora*.

- West Indies; Florida Keys to Brazil; Ascension and St. Helena Islands; Woods Hole, Mass.
Perca tota Siba, Thesaurus, LII, 1758, Tab. 27.
Trachinus adscensionis Osbeck, Iter Chin., etc., 1757, and English ed., 1771, 96, Ascension Island.
Trachinus punctatus Bonnaterre, Tableau Encycl., 1788, 46; after Osbeck.
Perca stellio Walbaum, Artedi Pisc., 1792, 349; after Siba.
 ?*Perca maculata* Bloch, Nat. Ausl. Fische, 1792, 92, Martinique; on a figure by Plumier. Name preoccupied in *Epinephelus*.
Trachinus osbeck Lacépède, Hist. Nat. Poiss., II, 1800, 364; after Osbeck.
Sparus atlanticus Lacépède, loc. cit., IV, 1803, 158, pl. 5, fig. 1, Martinique; on a drawing by Plumier.
Serranus nigriculus Cuvier and Valenciennes, Hist. Nat. Poiss., II, 1828, 381 (375); Martinique.
Serranus pizanga Cuvier and Valenciennes, loc. cit., 288 (383), after Pira-Pixanga or Gat-Vichof, Marcgrave, Hist. Brazil, 1648, 152.
Serranus aspersus Jenyns, Voy. Beagle, Fishes, 1842, 6, Porto Praya, St. Jago of the Cape Verde Islands.
Serranus impetiginosus Muller and Troschel, Schomburgk's Hist. Barb., 1848, 665, Barbados.
 ?*Serranus varius* Bocourt, Ann. Sci. Nat., X, 1868, 222, Gulf coast of Mexico.

2387. *Epinephelus guaza* (Linnæus). *Merou; Mérou; Guasa*.

- Coasts of southern Europe and western Africa, ranging north to England, southward to Cape of Good Hope, and westward to Rio Janeiro and to Guiana. The American form, *E. mentzeli* (Cuvier and Valenciennes), may prove different.
Labrus guaza Linnæus, Syst. Nat., ed. X, 1758, 285, "Habitat in Pelago."
Perca gigas Brunnich, Ichth. Massiliensis, No. 81, 1768, 65, Marseilles.
Holocentrus merou Lacépède, Hist. Nat. Poiss., IV, 1803, 377, Marseilles; after Brunnich.

- ?*Serranus menizelus* Cuvier and Valenciennes, loc. cit., II, 1828, 216 (291), coast of Brazil.
Perca robusta Couch, Mag. Nat. Hist., V, 1832, 21, fig. 7, Polperro, Cornwall.
Serranus marginatus Lowe, Proc. Zool. Soc. Lond., pt. 1, 1833, 142, Madeira.
Serranus fimbriatus Lowe, Trans. Cambr. Phil. Soc., 1836, 195, pl. 1, Madeira.
 ?*Epinephelus brachysoma* Cope, Trans. Amer. Phil. Soc., XIV, 1871, 466, Rio Janeiro.
2388. *Epinephelus labriformis* (Jenyns).
 Pacific coast of tropical America; Cape San Lucas to Galapagos Islands.
Serranus labriformis Jenyns, Voyage *Beagle*, Fishes, 1842, 8, pl. 3, Galapagos Islands.
Epinephelus selkcauda Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 250, Cape San Lucas.
Epinephelus ordinatus Cope, Trans. Amer. Phil. Soc., XIV, 1871, 466, Panama.
2389. *Epinephelus flavolimbatus* Poey. *Yellow-finned grouper*.
 West Indies, north to Pensacola.
Epinephelus flavolimbatus Poey, Repertorio, I, 1866, 183, Cuba.
2390. *Epinephelus niveatus* (Cuvier and Valenciennes). *Spotted grouper*;
Snowy grouper.
 West Indies to Brazil, occasionally northward in the Gulf Stream as far as Newport, R. I., and Woods Hole, Mass.
Serranus niveatus Cuvier and Valenciennes, Hist. Nat. Poiss., II, 1828, 285 (380), Brazil.
Serranus margaritifera Gunther, Cat., I, 1859, 131, South America.
Serranus conspersus Poey, Memorias, II, 1860, 139, Cuba.
Hyporthodus flavicauda Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 98, Newport, R. I.
2391. *Epinephelus striatus* (Bloch). *Nassau grouper*; *Hamlet*; *Cherna crotilla*; *Grouper*; *Rockfish*.
 West Indian fauna; Key West to Brazil.
Cherna Parra, Dif. Piezas, 1787, 50, Habana.
Anthias striatus Bloch, Naturgesch. Ausl. Fische, VI, 1792, 125, Martinique; on figure by Plumier.
Anthias cherna Bloch and Schneider, Syst. Ichth., 1801, 310, Cuba; after Parra.
Sparus chrysomelanurus Lacépède, Hist. Nat. Poiss., IV, 1803, 160, Martinique; on a copy of Plumier.
2392. *Epinephelus guttatus* (Linnaeus). *Cabrilla*; *Red hind*.
 West Indies; Carolina to Brazil, occasionally north to Charleston, the Florida Keys, and the Bermudas.
Perca guttata Linnaeus, Syst. Nat., ed. X, 1758, 292, Brazil; after Marcgrave, in part, but with a type specimen, examined by Lönnberg.
Cabrilla Parra, Dif. Piezas, Hist. Nat. Cuba, 1787, 93, pl. 36, Habana.
Lutjanus lunulatus Bloch and Schneider, Syst. Ichth., 1801, 329; after Parra, not *L. lunulatus* of Park.
Serranus catus Cuvier and Valenciennes, Hist. Nat. Poiss., II, 1828, 250 (373), Martinique.
Serranus maculosus Cuvier and Valenciennes, loc. cit., 332, verified by Boulenger.
Serranus arara Cuvier and Valenciennes, loc. cit., 283 (377), Habana.
Epinephelus cubanus Poey, Repertorio, I, 1866, 202, Cuba.
Serranus stadthouderi Vaillant, Miss. Sci. Mex., Poiss., 1877, 69, substitute for *maculosus* regarded as preoccupied by *maculatus*.
2393. *Epinephelus angustifrons* (Steindachner).
 Coast of Cuba.
Serranus angustifrons Steindachner, Verh. Ges. Wien, XIV, 230, Pl. VII, figs. 2 and 3, 1864, Cuba.

2394. *Epinephelus drummond-hayi* Goode and Bean. *Speckled hind*; *John paw*.
Bermudas, south Atlantic and Gulf coast of United States; Charleston, S. C.
Epinephelus drummond-hayi Goode and Bean, Proc. U. S. Nat. Mus., I, 1878, 173, 174, Pensacola; Bermuda.
2395. *Epinephelus niphobles* Gilbert and Starks.
Magdalena Bay, Lower California.
Epinephelus niphobles Gilbert and Starks, Proc. U. S. Nat. Mus., XIX, 1896, 442, Magdalena Bay, Lower California.
- Subgenus **VIVERO**⁵⁶ Jordan and Evermann.
2396. *Epinephelus morio* (Cuvier and Valenciennes). *Red grouper*; *Cherna americana*; *Cherna de vivero*; *Nègre*.
Atlantic coast of America; Woods Hole to Rio Janeiro.
Serranus morio Cuvier and Valenciennes, Hist. Nat. Poiss., II, 1828, 211 (285), New York and San Domingo.
Serranus erythrogaster DeKay, New York Fauna: Fishes, 1842, 21, pl. 19, fig. 52, Florida.
Serranus remotus Poey, Memorias, II, 1860, 140, Cuba.
- Genus 826. **GARRUPA** Jordan. *Black groupers*.
Garrupa Jordan, Bull. U. S. Fish Com., VIII, 1888 (1890), 353 (*Serranus nigrinus* Holbrook).
2397. *Garrupa nigrata* (Holbrook). *Black jewfish*; *Black grouper*; *Mero de lo alto*.
South Atlantic and Gulf coast of the United States, Charleston and Pensacola to Cuba and Brazil; perhaps straying to Sicily.
Serranus nigratus Holbrook, Ichth. South Carolina, Ed. I, 1855, 173, pl. 25, fig. 11, Charleston, S. C.
Centropristis merus Poey, Synopsis Piscium Cubensium, 1868, 288, Cuba.
? *Cerna sicana* Doderlein, Rivista delle Specie del Genere *Epinephelus* o *Cerna*, 1882, 81, Palermo.
- Genus 827. **PROMICROPS** Gill. *Guasas*.
Promicrops Gill, in Poey, Synopsis, 1868, 287 (*Serranus guasa* Poey = *Itaiara* Lichtenstein).
Itaiara Vaillant and Bocourt, Miss. Sci. Mexique, 1875, 90 (*Serranus itaiara* Lichtenstein).
2398. *Promicrops itaiara* (Lichtenstein). *Guasa*; *Spotted jewfish*; *Méro*.
Atlantic coast of tropical America, from Florida to Brazil; not uncommon about rocks.
Cugupuguacu Catesby, Nat. Hist. Carolina, 1771, 14; nonbinomial.
Serranus itaiara Lichtenstein, Abhandl. Berlin Acad. Wiss., 1821 (1822), 278, Brazil; not *Itaiara* of Maregrave.
Serranus galeus Müller and Troschel, in Schomburgk's Reise in Brit. Guiana, 1848, 621, Guiana.
Serranus guasa Poey, Memorias, II, 1861, 141; 1861, 354, Cuba.
2399. *Promicrops quinquefasciata* (Bocourt).
Pacific coast of Central America.
Serranus quinquefasciatus Bocourt, Ann. Sci. Nat., X, 1868, 223, Naguolate, Pacific coast of Guatemala; very close to *P. itaiara*.
- Genus 828. **ALPHESTES** Bloch and Schneider.
Alphestes Bloch and Schneider, Syst. Ichth., 1801, 236 (*Epinephelus afer* Bloch).
Prospinus Poey, in Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 287 (*Plectropoma chloropterum* Cuvier and Valenciennes = *Alphestes afer* Bloch).
2400. *Alphestes afer* (Bloch).
West Indies; Cuba to Brazil; recorded perhaps doubtfully from Guinea, if so, the American species, *A. chloropterus*, may prove different.
Epinephelus afer Bloch, Ichthyol., 1793, pl. 327, Acará in Guinea.
Plectropoma chloropterum Cuvier and Valenciennes, Hist. Nat. Poiss., II, 1828, 300 (398), San Domingo, Martinique.

⁵⁶ The subgenus *Vivero* is based on *Epinephelus morio* (Cuv. & Val.) which differs from all other species of *Epinephelus* in the elevation of the second dorsal spine.

Plectropoma monacanthus Muller and Troschel, in Schomburgk's Hist. Barbados, 1847, 665, Barbados.

?*Serranus armatus* Osorio, Jour. Sci. Lisbon, III, 1894, 74.

2401. *Alphestes multiguttatus* (Gunther).

Pacific coast of tropical America; Mazatlan to Panama.

Plectropoma multiguttatum Gunther, Proc. Zool. Soc. Lond., 1866, 600, Panama.

2402. *Alphestes lightfooti* (Fowler).

San Domingo, West Indies.

Epinephelus lightfooti Fowler, Proc. Acad. Nat. Sci. Phila., LIX, 1907, 258, fig. 3, San Domingo.

Genus 829. *DERMATOLEPIS* Gill.

Dermatolepis Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 54 (*Dermatolepis punctatus* Gill).

Lioperca Gill, loc. cit., XIV, 1862, 237 (*Serranus inermis* Cuvier and Valenciennes).

2403. *Dermatolepis punctatus* Gill.

West coast of Mexico; Cape San Lucas; the Venados; the Revillagigedos.

Dermatolepis punctatus Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 54, Cape San Lucas.

2404. *Dermatolepis zancus* Evermann and Kendall.

Key West.

Dermatolepis zancus Evermann and Kendall, Bull. U. S. Fish Com., XVII, 1897, 129, pl. 8, fig. 9, Key West, Fla.

Subgenus *LIOPERCA* Gill.

2405. *Dermatolepis inermis* (Cuvier and Valenciennes).

West Indies.

Serranus inermis Cuvier and Valenciennes, Hist. Nat. Poiss., IX, 1833, 322 (436), Antilles.

Genus 830. *TRISOTROPIS* Gill.

Trisotropis Gill, Proc. Acad. Nat. Sci. Phila., XVII, 1865, 104 (*Johnius guttatus* Bloch and Schneider = *Perca venenosa* Linnæus).

Archoperca Jordan and Evermann, Fishes North and Mid. Amer., 1896, 1171 (*Mycteroperca boulengeri* Jordan and Starks).

Subgenus *ARCHOPERCA* Jordan and Evermann.

2406. *Trisotropis boulengeri* (Jordan and Starks). *Cabrilla de raizero*; *Mangrove grouper*.

Mazatlan, Mexico.

Mycteroperca boulengeri Jordan and Starks, in Jordan, Fishes Sinaloa, Proc. Calif. Acad. Sci., V, 1895, 445, pl. 38, taken in the Astillero at Mazatlan, Mexico.

Subgenus *TRISOTROPIS* Gill.

2407. *Trisotropis venenosus* (Linnæus). *Rockfish*; *Yellow-finned grouper*; *Bonaci de Piedra*.

Bahamas, Florida Keys, and southward.

Perca venenosa Linnæus, Syst. Nat., Ed. X, 1758, 292, Bahamas; after Catesby.

Serranus petrosus Poey, Memorias, II, 1861, 136, Cuba.

2408. *Trisotropis venenosus apua* (Bloch). *Bonaci cardenal*.

West Indies, Florida Keys, and southward to Brazil. A red form of *T. venenosus*.

Bodianus apua Bloch, Nat. Ausl. Fische, IV, 1790, 50, Brazil; after a drawing by Prince Maurice—the same used by Marcgrave.

Pirata apia Marcgrave, Hist. Brasil., 1648, 158, Brazil.

Bonaci cardenal Parra, Piezas de Hist. Nat. Cuba, 1787, 29, Pl. XVI, Habana.

Johnius guttatus Bloch and Schneider, Syst. Ichth., 1801, 77; after Parra.

Bodianus marginatus Bloch and Schneider, loc. cit., 331; after Marcgrave.

Serranus rupestris Cuvier and Valenciennes, Hist. Nat. Poiss., IX, 1833, 323 (437), San Domingo.

2409. *Trisotropis bonaci* (Poey). *Marbled rockfish; Bonaci arara; Black grouper; Aguaji; Bonaci*.
West Indies; Pensacola to Brazil; Woods Hole, Mass.
Serranus bonaci Poey, *Memorias*, II, 1861, 129, Cuba.
Serranus brunneus Poey, loc. cit., 131, Cuba.
Serranus decemalis Poey, loc. cit., 138, Cuba; specimen with ten dorsal spines.
Trisotropis aguaji Poey, *Repertorio*, II, 1868, 229, Habana.
Serranus cyclopomatus Poey, *Memorias*, 1861, 353, Cuba.
Serranus latepictus Poey, loc. cit., 353, Cuba.
2410. *Trisotropis xanthostictus* (Jordan and Swain).
Snapper Banks off Pensacola, Fla.
Mycteroperca bonaci xanthosticta Jordan and Swain, *Proc. U. S. Nat. Mus.*, VII, 1884, 371, Snapper Banks off Pensacola, Fla.
2411. *Trisotropis jordani* (Jenkins and Evermann). *Cabrilla de astillero; Baya*.
Pacific coast of Mexico from Gulf of California to Mazatlan.
Epinephelus jordani Jenkins and Evermann, *Proc. U. S. Nat. Mus.*, XI, 1888, 140, Guaymas, Sonora.
2412. *Trisotropis microlepis* Goode and Bean. *Gog; Aguaji*.
South Atlantic and Gulf coast of United States, north to Virginia, south to Pensacola and Key West.
Trisotropis microlepis Goode and Bean, *Proc. U. S. Nat. Mus.*, II, 1879, 141, west Florida.
Trisotropis stomas Goode and Bean, loc. cit., V, 1882, 427, Pensacola; Key West.
2413. *Trisotropis interstitialis* (Poey).
Coast of Cuba; Woods Hole, Mass.
Serranus interstitialis Poey, *Memorias*, II, 1861, 127, Cuba.
Trisotropis chlorostomus Poey, *Repertorio*, II, 1868, 231, Cuba.
2414. *Trisotropis dimidiatus* (Poey).
Coast of Cuba.
Serranus dimidiatus Poey, *Memorias*, II, 1861, 129, Cuba.
2415. *Trisotropis xenarchus* (Jordan).
Pacific coast of Mexico to the Venados Islands near Mazatlan and to the Galapagos Archipelago.
Mycteroperca xenarcha Jordan, *Proc. Acad. Nat. Sci. Phila.*, XXXIX, 1887, 387, Galapagos Islands; Payta, Peru.
- Genus 831. MYCTEROPERCA Gill.
Mycteroperca Gill, *Proc. Acad. Nat. Sci. Phila.*, XV, 1863, 80 (*Serranus olfax* Jenyns).
2416. *Mycteroperca venadorum* Jordan and Starks. *Garlopa*.
West coast of Mexico at Mazatlan.
Mycteroperca venadorum Jordan and Starks, in Jordan, *Proc. Calif. Acad. Sci.*, V, 1895, 446, Mazatlan, Mexico.
2417. *Mycteroperca bowersi* Evermann and Marsh.
Culebra and Vieques Islands, Porto Rico.
Mycteroperca bowersi Evermann and Marsh, *Bull. Bur. Fish.*, XX, 1900 (1902), 158, Culebra Island.
2418. *Mycteroperca hopkinsi* Jordan and Rutter.
Jamaica.
Mycteroperca hopkinsi Jordan and Rutter, *Proc. Acad. Nat. Sci. Phila.*, XLIX, 1897, 105, Jamaica.
2419. *Mycteroperca olfax* (Jenyns). *Yellow grouper; Gourami*.
James Island, Galapagos Archipelago; Panama.
Serranus olfax Jenyns, *Voyage Beagle*, Fishes, 1840, 9, pl. 4, Galapagos Islands.
2420. *Mycteroperca rosacea* (Streets). *Cabrilla calamaria*.
Gulf of California.
Epinephelus rosaceus Streets, *Bull. U. S. Nat. Mus.*, VII, 1877, 51, Angel Island, Gulf of California.

2421. *Mycteroperca falcata* (Poey). *Scamp; Bacalao; Abadejo*.
West Indies, north to Bermuda.
Serranus falcatus Poey, *Memorias*, II, 1861, 138, Habana.
2422. *Mycteroperca phenax* Jordan and Swain. *Scamp; Bacalao*.
Coasts of southern Florida; abundant about the keys.
Mycteroperca falcata phenax Jordan and Swain, *Proc. U. S. Nat. Mus.*, VII, 1884, 363, Key West, Fla.
2423. *Mycteroperca calliura* Poey.
Coast of Cuba.
Mycteroperca calliura Poey, *Repertorio*, I, 1867, 181, Cuba.
2424. *Mycteroperca tigris* (Cuvier and Valenciennes). *Bonaci gato; Rockfish*.
West Indies, north to Bermuda.
Serranus tigris Cuvier and Valenciennes, *Hist. Nat. Poiss.*, IX, 1833, 325 (440), San Domingo.
Serranus felinus Poey, *Memorias*, II, 1861, 134, Habana
Serranus repandus Poey, loc. cit., 135, Habana
Trisotropis reticulatus Gill, *Proc. Acad. Nat. Sci. Phila.*, XVII, 1865, 105, Barbados.
2425. *Mycteroperca camelopardalis* (Poey).
West Indies.
Serranus camelopardalis Poey, *Memorias*, II, 1861, 132, Cuba, a bright red form, otherwise similar to *M. tigris*.
- Genus 832. *XYSTROPERCA* Jordan and Evermann.
Xystroperca Jordan and Evermann, *Fishes North and Mid. Amer.*, 1896, 1181 (*Mycteroperca pardalis* Gilbert).
2426. *Xystroperca pardalis* (Gilbert). *Cabrilla pirutita*.
Gulf of California.
Mycteroperca pardalis Gilbert, *Proc. U. S. Nat. Mus.*, XIV, 1891, 551, La Paz Bay, Lower California.
- Genus 833. *PAREPINEPHELUS* Bleeker.
Parepinephelus Bleeker, *Systema Percarum Revisum*, in *Archiv. Neer. des Sci. Exet. Nat.*, XI, 1875, 1876, 257 (*Serranus acutirostris* Cuvier and Valenciennes = *Epinephelus ruber* Bloch).
2427. *Parepinephelus acutirostris* (Cuvier and Valenciennes). *Scirenga*.
West Indies, Brazil, Mediterranean Sea, and islands of the eastern Atlantic.
*?Epinephelus ruber*⁵⁷ Bloch, *Nat. Ausl. Fische*, VII, 1793, 22, pl. 330, "Japan"; probably from the Mediterranean.
Serranus acutirostris Cuvier and Valenciennes, *Hist. Nat. Poiss.*, II, 1828, 212 (286), Brazil.
Serranus undulosus Cuvier and Valenciennes, loc. cit., 219 (295), Brazil.
Serranus tinca Cantraine, "Nouv. Mem. Ac. Brux.", XI, 1831, Naples.
Serranus fuscus Lowe, *Trans. Cambr. Philos. Soc.*, VI, 1838, 196, Madeira.
Cerna nebulosa Cocco, "Indice Pesci. Messina, Gen. 45, sp. 2," 1844, Messina.
Cerna macrogenis Sassi, "Descr. Genovæil Genovasato, I, 139," 1846, Genoa.
Serranus emarginatus Valenciennes, *Ichth. Îles Canaries*, 1839, 10, Canary Islands.
Epinephelus chalinus Cope, *Trans. Amer. Phil. Soc.*, XIV, 1871, 465, St. Martins.
Cerna acutirostris lata Doderlein, loc. cit., 74, Palermo.
- Genus 834. *CHORISTISTIUM* Gill.
Chorististium Gill, *Proc. Acad. Nat. Sci. Phila.*, XIV, 1862, 15 (*Liopropoma rubra* Poey).
2428. *Chorististium rubrum* (Poey).
Coast of Cuba.
Liopropoma rubre Poey, *Memorias*, II, 1861, 418, Habana.

⁵⁷ The original type of *E. ruber* has 24 gill rakers; all others examined (Athem, Brazil) have 30 to 35; for these we retain the name *acutirostris* pending investigation.

Genus 835. LIOPROPOMA Gill.

Liopropoma Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 52 (*Perca aberrans* Poey).

2429. *Liopropoma aberrans* (Poey).

Coast of Cuba

Perca aberrans Poey, Memorias, II, 1861, 125, Cuba.

2430. *Liopropoma longilepis* Garman.

Eastern Pacific in deep water.

Liopropoma longilepis Garman, Mem. Mus. Comp. Zool., XXIV, 1889, 47, lat 7° 30' N., long 78° 34' W.

Genus 836. RYPTICUS Cuvier. Soapfishes.

Rypticus Cuvier, Règne Animal, ed. 2, II, 1829, 144 (*Anthias saponaceus* Bloch and Schneider).

Smecticus Valenciennes, Ichth. Voy. *Vénus*, 1855, 305 (*S. bicolor* Valenciennes).

Eleutheractis Cope, Trans. Amer. Phil. Soc., XIV, 1871, 467 (*E. coriaceus* Cope).

Rhypticus authors, corrected spelling.

2431. *Rypticus saponaceus* (Bloch and Schneider). Soapfish; Jabon; Jaboncullo.

West Indies; Pensacola to west Africa and Brazil.

Jaboncillo Parra, Difer. Piezas de Hist. Nat., 1787, 51, lam. 24, fig. 2, Habana.

Anthias saponaceus Bloch and Schneider, Syst. Ichth., 1801, 310, Habana.

2432. *Rypticus arenatus* Cuvier and Valenciennes.

West Indies and coast of Brazil; recorded from Jamaica, Trinity, Barbados, and St. Thomas.

Rypticus arenatus Cuvier and Valenciennes, Hist. Nat. Poiss., III, 1829, 48 (65), pl. 46, Brazil

?*Rhypticus subbifrenatus* Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 53, St. Thomas

?*Rhypticus nigromaculatus* Steindachner, Ichth. Notiz., VI, 1867, 42, Barbados; dorsal with four spines instead of three.

2433. *Rypticus coriaceus* (Cope). Black soapfish.

West Indies; recorded from St. Martins and Jamaica.

Eleutheractis coriaceus Cope, Trans. Amer. Phil. Soc., XIV, 1870 (1871), 467, St. Martins.

2434. *Rypticus xanti* (Gill).

Pacific coast of Mexico, from Cape San Lucas to Colima and Mazatlan.

Rhypticus xanti Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 250, Cape San Lucas.

2435. *Rypticus bicolor* (Valenciennes).

Galapagos Archipelago.

Smecticus bicolor Valenciennes, Voy. *Vénus*, Poissons, 1855, 307, pl. 2, fig. 2, Galapagos Archipelago.

Genus 837. PROMICROPTERUS Gill.

Promicropterus Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 53 (*Rhypticus maculatus* Holbrook = *Bodianus bistrispinus* Mitchill).

2436. *Promicropterus bistrispinus* (Mitchill). Soapfish.

South Atlantic coast of United States; frequent off Charleston, Pensacola, and Key West, Porto Rico; occasional as far north as Newport, R. I.

Bodianus bistrispinus Mitchill, Amer. Month. Mag. and Crit. Review, II, February, 1818, 247, Straits of Bahama.

Rypticus maculatus Holbrook, Ichth. South Carolina, Ed. I, 1855, 39, Cape Romain, S. C.

Rhypticus pituitosus Goode and Bean, Proc. U. S. Nat. Mus., II, 1879, 341, Key West, Fla.

2437. *Promicropterus nigripinnis* (Gill).
Pacific coast of tropical America, Cape San Lucas to Panama.
Rhypticus nigripinnis Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 53, Panama.
Rhypticus maculatus Gill, loc. cit., XIV, 1862, 251, Cape San Lucas.
Promicropterus decoratus Gill, loc. cit., XV, 1863, 164, Panama.

Family 195. SERRANIDÆ. Sea bass

- Genus 838. *PARALABRAX* Girard. *Cabrillas verdes*.
Paralabrax Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 131 (*Labrax nebulifer* Girard).
2438. *Paralabrax nebulifer* (Girard). *Johnny verde*; *Kelp bass*.
Southern California, from Monterey to Magdalena Bay.
Labrax nebulifer Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 142, Monterey, Calif.
2439. *Paralabrax maculatofasciatus* (Steindachner). *Spotted cabrilla*.
Pacific coast of America from Lower California to San Pedro and Mazatlan.
Serranus maculatofasciatus Steindachner, Ichth. Notizen, VII, 1868, 5, Mazatlan, Mexico.
? *Serranus acanthophorus* Bocourt, Ann. Sci. Nat., X, 1870, 223, Pacific coast of Mexico.
2440. *Paralabrax humeralis* (Cuvier and Valenciennes).
Pacific coast of South America; Panama to Juan Fernandez.
Serranus humeralis Cuvier and Valenciennes, Hist. Nat. Poiss., II, 1828, 183 (246), Chile.
Serranus albomaculatus Jenyns, Zool. Beagle, Fishes, 1840, 3, pl. 2, Galapagos Archipelago.
? *Serranus semifasciatus* Guichenot, in Gay, Hist. Chile, II, 1847, 151, pl. 1, fig. 2, Juan Fernandez.
2441. *Paralabrax clathratus* (Girard). *Cabrilla*; *Rock bass*.
Coast of southern California, from San Francisco to Cedros Island.
Labrax clathratus Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 143, San Diego.
- Genus 839. *CRATINUS* Steindachner.
Cratinus Steindachner, Ichth. Beitr., VII, 1878, 19 (*C. agassizii* Steindachner).
2442. *Cratinus agassizii* Steindachner.
Galapagos Archipelago.
Cratinus agassizii Steindachner, Ichth. Beitr., VII, 1878, 19, Galapagos Islands.
- Genus 840. *CENTROPRISTES* Cuvier and Valenciennes. *Black sea bass*.
Centropristes Cuvier and Valenciennes, Hist. Nat. Poiss., III, 1829, 27 (36) (*C. nigricans* Cuvier and Valenciennes = *Labrus striatus* Linnæus).
Centropristes of authors; variation in spelling.
2443. *Centropristes striatus* (Linnæus). *Black sea bass*; *Blackfish*; *Tallywag*; *Hannahill*; *Black Will*; *Black Harry*; *Black perch*; *Black bass*; *Bluefish*.
Atlantic coast of United States, Cape Ann to northern Florida.
Labrus striatus Linnæus, Syst. Nat., ed. X, 1758, 285, "America"; description very brief, but not to be referred to any other fish.
Perca atraria Linnæus, loc. cit., ed. XII, 1766, 485, Carolina.
Perca furva Walbaum, Artedi Pisc., 1792, 336, New York; after Schöpfung.
Coryphæna nigriscens Bloch and Schneider, Syst. Ichth., 1801, 297, New York.
Lutjanus trilobatus Lacépède, Hist. Nat. Poiss., IV, 1802, 246, locality unknown.
Perca varia Mitchill, Trans. Lit. & Phil. Soc. N. Y., I, 1815, 415, pl. 3, fig. 6, New York.

2444. *Centropristes ocyurus* (Jordan and Evermann) *Gulf sea bass*.
Gulf of Mexico at Snapper Banks off Pensacola, Fla
Serranus ocyurus Jordan and Evermann, Proc. U. S. Nat. Mus., IX,
1886, 468, Snapper Banks off Pensacola, Fla.

2445. *Centropristes rufus* Cuvier and Valenciennes. *Hogfish*.
Martinique
Centropristes rufus Cuvier and Valenciennes, Hist. Nat. Poiss., III,
1829, 35 (47), Martinique.

Genus 841. **TRILOBURUS** Gill.

Triloburus Gill, Cat. Fish. East Coast U. S., Supplement to Proc. Acad.
Nat. Sci. Phila., XIII, 1861, 30 (*Perca trifurca* Storer = *Perca philadel-*
phica Linnæus)

2446. *Triloburus philadelphicus* (Linnæus). *Rock sea bass, Redfish*.
Coast of South Carolina.
Perca philadelphica Linnæus, Syst. Nat., ed. X, 1758, 291, America
Perca trifurca Linnæus, loc. cit., ed. XII, 1766, 489, Carolinas
Lutjanus tridens Lacépède, Hist. Nat. Poiss., IV, 1802, 246, Carolinas.

Genus 842. **DIPLECTRUM** Holbrook. *Squirrelfishes*.

Diplectrum Holbrook, Ichth. South Carolina, ed. I, 1855, 32 (*Serranus fascicularis* Cuvier and Valenciennes = *Perca formosa* Linnæus).
Haliperca Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 236, (*Serranus bivittatus* Cuvier and Valenciennes = *Serranus radialis* Quoy and Gaimard, and other species).
Paraserranus Bleeker, Verh. Akad. Amst., XIV, 1873, 6 (*P. hasselti* Bleeker).

Subgenus **HALIPERCA** Gill.

2447. *Diplectrum radiale* (Quoy and Gaimard). *Aguavina*.
Cuba to Brazil
Serranus radialis Quoy and Gaimard, Voyage *Uranie*, 1824, 316, Rio Janeiro.
Serranus bivittatus Cuvier and Valenciennes, Hist. Nat. Poiss., II, 1828, 179 (241), Martinique.
Centropristes ayresi Steindachner, Ichth. Notizen, VII, 1868, 1, pl. 1, fig. 1, Santos, Brazil.

2448. *Diplectrum pacificum* Meek and Hildebrand.

Panama.
Diplectrum radiale Gilbert and Starks, Memoir Calif. Acad. Sci., IV, 1904, 97 (not of Quoy and Gaimard).
Diplectrum pacificum Meek and Hildebrand, Field Mus. Nat. Hist., Zool., XV, Apr. 15, 1925, 477, Pl. XLVI, fig. 2, Naos Island, Panama.

2449. *Diplectrum macropoma* (Günther).

Pacific coast of tropical America.
Centropristis macropoma Gunther, Proc. Zool. Soc. Lond., 1864, 145, Panama.

2450. *Diplectrum sciurus* Gilbert.

Gulf of California.
Diplectrum sciurus Gilbert, Proc. U. S. Nat. Mus., XIV, 1891, 550, Gulf of California at Albatross stations Nos 3014, 3021, 3026, and 3033, all in shallow water.

2451. *Diplectrum euryplectrum* Jordan and Bollman.

Coast of Colombia, southwest of Panama
Diplectrum euryplectrum Jordan and Bollman, Proc. U. S. Nat. Mus., XII, 1889, 157, Pacific Ocean, off coast of Colombia.

Subgenus **DIPLECTRUM** Holbrook.

2452. *Diplectrum formosus* (Linnæus). *Squirrelfish; Sandfish; Serrano*.
West Indies; common on the south Atlantic and Gulf coasts of the United States, from Charleston south to Montevideo.
Perca formosa Linnæus, Syst. Nat., ed. XII, 1766, 488, Carolinas.
Epinephelus striatus Bloch, Naturgesch. Ausl. Fische, VII, 1793, 20, Jamaica (not *Anthias striatus* Bloch).
Serranus radialis Quoy and Gaimard, Voy. *Uranie*, Poiss., 1824, 313, pl. 58, fig. 2, Rio de Janeiro.

Serranus irradians Cuvier and Valenciennes, Hist. Nat. Poiss., II, 1828, 181 (244), Montevideo.

Serranus fascicularis Cuvier and Valenciennes, loc. cit., 182 (245), pl. 30, Brazil.

Genus 843. PRIONODES Jenyns.

Prionodes Jenyns, Voy. *Beagle*, Fishes, 1842, 46 (*P. fasciatus* Jenyns).

2453. *Prionodes æquidens* (Gilbert).

Gulf of California.

Serranus æquidens Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 61, Gulf of California at Albatross station No. 2996, in 112 fathoms.

2454. *Prionodes fuscus* (Poey).

Cuba.

Centropristes fuscus Poey, Memorias, II, 1861, 342, Cuba.

2455. *Prionodes phæbe* (Poey). *Phæbe*.

West Indies, north to Pensacola, Fla.

Serranus phæbe Poey, Memorias, I, 1852, 55, pl. 2, fig. 3, Cuba.

2456. *Prionodes baldwini* Evermann and Marsh.

Porto Rico.

Prionodes baldwini Evermann and Marsh, Rept. U. S. Fish Com., XXV, 1899 (1900), 353, Culebra and Vieques Islands.

2457. *Prionodes fasciatus* Jenyns.

Pacific coast of Mexico, Cape San Lucas to Galapagos Islands.

Prionodes fasciatus Jenyns, Voy. *Beagle*, Fishes, 1840, 46, Chatham Island, Galapagos Archipelago.

Serranus psittacinus Valenciennes, Voy. *Vénus*, Poiss., 1855, 299, pl. 1, fig. 1, Galapagos Islands.

Serranus calopteryx Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 350, Mazatlan.

2458. *Prionodes bulleri* (Boulenger).

Coast of Jalisco, western Mexico.

Serranus bulleri Boulenger, Cat., I, 1895, 288, Las Peñas, Jalisco, Mexico.

2459. *Prionodes dewegeri* (Metzelaar).

Caribbean Sea.

Serranus (Paralabrax) dewegeri Metzelaar, Trop. Atl. Visschen, 1919, 52, fig. 20, Guanta, coast of Venezuela.

2460. *Prionodes tabacaria* (Cuvier and Valenciennes) *Jacome; Bout de tabac*.

West Indies.

Centropristes tabacarius Cuvier and Valenciennes, Hist. Nat. Poiss., III, 1829, 33 (44), Martinique.

Serranus jacome Poey, Memorias, I, 1852, 57, pl. 2, fig. 1, Cuba.

2461. *Prionodes tigrinus* (Bloch).

West Indies

Holocentrus tigrinus Bloch, Naturgesch. Ausl. Fische, IV, 1790, 77, East Indies; after Seba, Thesaurus, III, Pl. XXVII, fig. 5

Serranus prestigator Poey, Memorias, I, 1852, 58, pl. 2, fig. 2, Habana.

?*Centropristes annularis* Gunther, Shore Fishes, *Challenger* Rept., Zool., I, pt. 6, 1880, 6, pl. 1, fig. C, Pernambuco.

2462. *Prionodes flavescens* (Cuvier and Valenciennes).

Martinique.

Serranus flavescens Cuvier and Valenciennes, Hist. Nat. Poiss., VI, 1830, 380 (506), Martinique.

Genus 844. MENTIPERCA Gill.

Mentiperca Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 236 (*Serranus luciopercanus* Poey).

2463. *Mentiperca luciopercana* (Poey).

Coast of Cuba.

Serranus luciopercanus Poey, Memorias, I, 1852, 56, pl. 9, fig. 1, Cuba.

Genus 845. CENTRISTHMUS Garman.

Centristhmus Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 47 (*Centristhmus signifer* Garman).

2464. *Centristhmus signifer* Garman.

Off Bay of Panama in deep water.

Centristhmus signifer Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 48, Pl. LXIX, off Bay of Panama.**Genus 846. *DULES* Cuvier.***Dules* Cuvier, Règne Animal, ed. 2, II, 1829, 147 (*Dules auriga* Cuvier and Valenciennes).*Eudulus* Fowler, Proc. Acad. Nat. Sci. Phila., LIX, 1907, 264 (*Dules auriga* Cuvier and Valenciennes; *Dulus* being a genus of birds).**2465. *Dules auriga* Cuvier and Valenciennes. *Coachman*; *Charioteer*.**

Coasts of Brazil and Uruguay, and occasionally northward.

Dules auriga Cuvier and Valenciennes, Hist. Nat. Poiss., III, 1829, 83 (112), pl. 51, Brazil.*Centropristis brasiliensis* Brissot de Barneville, Révue Zoologique, 1847, 131, Bahia**Genus 847. *CALLIDULUS* Fowler.***Callidulus* Fowler, Proc. Acad. Nat. Sci. Phila., LIX, 1907, 265 (*Centropristis subligarius* Cope).**2466. *Callidulus flaviventris* Cuvier and Valenciennes. *Grassy ground rockfish*.**

Tropical America, Charleston to Brazil.

Dules flaviventris Cuvier and Valenciennes, Hist. Nat. Poiss., III, 1829, 85, Brazil.*Centropristis dispilurus* Gunther, Proc. Zool. Soc. Lond., 1867, 99, Trinidad.*Centropristis subligarius* Cope, Proc. Acad. Nat. Sci. Phila., XXII, 1870, 120, Pensacola, Fla.**Genus 848. *PARANTHIAS* Guichenot.***Brachyrhinus* Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 286 (*Serranus creolus* Cuvier and Valenciennes).*Paranthias* Guichenot, Ann. Soc. Linn. Maine-et-Loire, X, 1868 (*Serranus furcifer* Cuvier and Valenciennes=*Serranus creolus* Cuvier and Valenciennes).*Creolus* Jordan and Gilbert, Synopsis, Bull. U. S. Nat. Mus., XVI, 1882, XXXVI (withdrawn in the text) (*Serranus furcifer* Cuvier and Valenciennes).**2467. *Paranthias furcifer* (Cuvier and Valenciennes). *Rabirubia de lo alto*; *Creolefish*.**

Both coasts of tropical America, Cuba to Brazil, Cape San Lucas to the Galapagos Archipelago.

Serranus furcifer Cuvier and Valenciennes, Hist. Nat. Poiss., II, 1828, 196 (264), Brazil.*Serranus creolus* Cuvier and Valenciennes, loc. cit., 197 (265), Martinique; San Domingo*Corvina oxyptera* DeKay, New York Fauna: Fishes, 1842, 77, Pl. XXX, fig. 96, locality unknown.*Serranus colonus* Valenciennes, Voy. Vénus, Zool., 1855, 300, pl. 2, fig. 1, Galapagos Islands.**Genus 849. *OCYANTHIAS* Jordan and Evermann.***Ocyanthias* Jordan and Evermann, Fishes North and Mid. Amer., 1896, 1227 (*Aylopon martinicensis* Guichenot).**2468. *Ocyanthias martinicensis* (Guichenot).**

West Indies.

Aylopon martinicensis Guichenot, Anthiani, Ann. Linn. Soc., X, 1868, Martinique.**Genus 850. *HYPOPLECTRUS*⁸⁸ Gill. *Vacas*.***Hypoplectrus* Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 236 (*Plectropoma puella* Cuvier and Valenciennes=variety of *Perca unicolor* Walbaum).

⁸⁸ The West Indian forms correctly referred to this species fall into several groups here provisionally designated as subspecies of the form first named (*H. unicolor*), apparently differing only in color. These range from mottled olive and orange to intense indigo blue.

2469. *Hypoplectrus unicolor* (Walbaum). *Vaca*; *Petitnègre*.
West Indies, north to Florida Keys
Perca unicolor Walbaum, *Artedi Piscium*, III, 1792, 352, locality unknown.
Plectropoma ephippium Cuvier and Valenciennes, *Hist. Nat. Poiss.*, II, 1828, 307, (408), locality unknown.
Hypoplectrus maculiferus Poey, *Ann. Lyc. Nat. Hist. N. Y.*, X, 1871, 78, Habana.
2470. *Hypoplectrus unicolor puella* (Cuvier and Valenciennes). *Vaca*.
Martinique.
Plectropoma puella Cuvier and Valenciennes, *Hist. Nat. Poiss.*, II, 1828, 305 (405), pl. 37, Martinique.
2471. *Hypoplectrus unicolor vitulinus* (Poey).
Cuba.
Plectropoma vitulinum Poey, *Memorias*, I, 1852, 68, Cuba.
2472. *Hypoplectrus unicolor pinnivarius* (Poey).
Habana.
Hypoplectrus pinnivaria Poey, *Synopsis*, 1868, 291, Habana.
2473. *Hypoplectrus unicolor guttavarius* (Poey).
Cuba.
Plectropoma guttavarium Poey, *Memorias*, I, 1852, 70, Cuba.
Plectropoma melanorhina Guichenot, *Poissons*, in *Ramon de la Sagra*, *Hist. Cuba*, 1853, 18, pl. 1, fig. 1, Cuba.
2474. *Hypoplectrus unicolor gummigutta* (Poey).
Cuba.
Plectropoma gummigutta Poey, *Memorias*, I, 1852, 70, Cuba.
2475. *Hypoplectrus unicolor crocotus* (Cope).
West Indies.
Plectropoma crocota Cope, *Trans. Amer. Phil. Soc.*, XIV, 1870 (1871), 466, St. Martins, West Indies.
2476. *Hypoplectrus unicolor aberrans* (Poey).
Cuba.
Hypoplectrus aberrans Poey, *Synopsis*, 1868, 291, Cuba.
2477. *Hypoplectrus unicolor accensus* (Poey).
Cuba.
Plectropoma accensum Poey, *Memorias*, I, 1852, 72, Cuba.
2478. *Hypoplectrus unicolor affinis* (Poey).
Cuba.
Plectropoma affine Poey, *Memorias*, II, 1861, 427, Cuba.
2479. *Hypoplectrus unicolor chlorurus* (Cuvier and Valenciennes).
Martinique.
Plectropoma chlorurum Cuvier and Valenciennes, *Hist. Nat. Poiss.*, II, 1828, 306 (406), Martinique.
2480. *Hypoplectrus unicolor nigricans* (Poey).
Cuba.
Plectropoma nigricans Poey, *Memorias*, I, 1852, 71, Cuba.
2481. *Hypoplectrus unicolor indigo* (Poey). *Añil*.
Cuba.
Plectropoma indigo Poey, *Memorias*, I, 1852, 69, pl. 3, fig. 1, Cuba.
2482. *Hypoplectrus unicolor bovinus* (Poey).
Cuba.
Plectropoma bovinum Poey, *Memorias*, I, 1852, 69, Cuba.
2483. *Hypoplectrus unicolor gemma* Goode and Bean.
Florida Keys; known from one specimen from Garden Key, Fla.
Hypoplectrus gemma Goode and Bean, *Proc. U. S. Nat. Mus.*, V, 1882, 428, Garden Key, Fla.
2484. *Hypoplectrus lamprurus* (Jordan and Gilbert).
Panama.
Serranus lamprurus Jordan and Gilbert, *Bull. U. S. Fish Com.*, I, 1881, 322, Panama.

Genus 851. ANTHIAS Bloch. *Barbiers*.*Anthias* Bloch, Nat. Ausl. Fische, VI, 1792, 97 (*Labrus anthias* L.).*Aylopon* Rafinesque, Caratteri, 1810, 52, (*Labrus anthias* L.; the name *Anthias* said to be preoccupied).**2485. *Anthias tenuis* Nichols.**

Bermuda.

Anthias tenuis Nichols, Proc. Biol. Soc. Wash., XXXIII, 1920, 60, Bermudas.**Genus 852. HEMIANTHIAS Steindachner.***Hemianthias* Steindachner, Ichth. Beitr., I, 1874, 4 (*Anthias* (*Hemianthias*) *peruanus* Steindachner).**2486. *Hemianthias peruanus* (Steindachner).**

Coasts of Peru and Chile, occasionally northward; off the coast of Lower California.

Anthias (*Hemianthias*) *peruanus* Steindachner, Ichth. Beitr., I, 1874, 4, Payta; Trujillo.**2487. *Hemianthias vivanus* (Jordan and Swain).**

Gulf of Mexico; Snapper Banks between Pensacola and Tampa, Fla.

Anthias vivanus Jordan and Swain, Proc. U. S. Nat. Mus., VII, 1884, 544, from stomach of a red snapper taken at the Snapper Banks off Pensacola, Fla.**Genus 853. PRNOTOGRAMMUS Gill.***Pronotogrammus* Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 80 (*P. multifasciatus* Gill).**2488. *Pronotogrammus multifasciatus* Gill.**

Off Bay of Panama; Cape San Lucas, Lower California.

Pronotogrammus multifasciatus Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 81, Cape San Lucas, Lower California.**2489. *Pronotogrammus eos* Gilbert.**

Pacific coast of tropical America.

Pronotogrammus eos Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 62, west coast of Mexico, at Albatross station 2996, in 112 fathoms.**Family 196. PSEUDOCROMIDÆ****Genus 854. GRAMMA Poey.***Gramma* Poey, Synopsis, 1868, 296 (*G. loreto* Poey).**2490. *Gramma loreto* Poey.**

Matanzas, Cuba; only the type known.

Gramma loreto Poey, Synopsis, 1868, 296, Matanzas, Cuba.**Family 197. RHEGMATIDÆ****Genus 855. RHEGMA Gilbert.***Rhegma* Gilbert, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 3169 (*Rhegma thaumasium* Gilbert).**2491. *Rhegma thaumasium* Gilbert.**

Panama.

Rhegma thaumasium Gilbert, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 3170, Panama.**Family 198. PRIACANTHIDÆ. Big-eyes or catalufas****Genus 856. PRIACANTHUS Cuvier.***Priacanthus* Cuvier, Règne Animal, ed. 1, 1817, 281 (*P. macrophthalmus* Cuvier).**2492. *Priacanthus cruentatus* (Lacépède). *Big-eye; Catalufa*.**Tortugas; West Indies to St. Helena and the Canaries (*Priacanthus carolinus* Lesson), a species very similar or identical in Hawaii and the western Pacific.*Labrus cruentatus* Lacépède, Hist. Nat. Poiss., III, 1802, 522, Martinique; from a copy by Aubriet of a plate made by Plumier at Martinique.

- Priacanthus cepedianus* Desmarest, Prém. Dec. Ichthy., 1823, 9, pl. 1, Habana.
 ?*Priacanthus carolinus* Lesson, Voy. Coquille, 1826, 204, Caroline Islands.
2493. *Priacanthus arenatus* Cuvier and Valenciennes. *Catalufa*; *Big-eye*. West Indies, south to Brazil; occasionally northward in the Gulf Stream to Newport and Woods Hole, Mass.
Catalufa Parra, Dif. Piezas Hist. Nat., 1787, 20, Habana.
Priacanthus arenatus Cuvier and Valenciennes, Hist. Nat. Poiss., III, 1829, 75 (101), Brazil.
Priacanthus fulgens Lowe, Trans. Zool. Soc. Lond., II, 1839, 174, Madeira.
Priacanthus catalufa Poey, Proc. Acad. Nat. Sci. Phila., XV, 1863, 182, Habana.
- Genus 857. **PSEUDOPRIACANTHUS** Bleeker.
Pseudopriacanthus Bleeker, Versl. Ak. Wet. Amsterdam, 1869 (2), 241 (*Priacanthus nipponius* Cuvier and Valenciennes).
2494. *Pseudopriacanthus altus* (Gill)
 West Indies and the Gulf Stream.
Priacanthus altus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 732, Narragansett Bay.
2495. *Pseudopriacanthus serrula* (Gilbert).
 Pacific coast of Colombia.
Priacanthus serrula Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 450, Albatross station, 2797, west coast of Colombia.

Family 199. **PEMPHERIDÆ**. Deep-water catalufas

- Genus 858. **PEMPHERIS** Cuvier.
Pempheris Cuvier, Règne Anim., ed. 2, II, 1829, 195 (*Kurtus argenteus* Bloch and Schneider = *Pempheris touea* Cuvier).
2496. *Pempheris schomburgkii* Müller and Troschel.
 Barbados and Cuba.
Pempheris schomburgkii Müller and Troschel, in Schomburgk's History of Barbados, 1848, 669, Barbados.
2497. *Pempheris mülleri* Poey. *Catalufa de lo alto*.
 West Indies to Brazil.
Pempheris mülleri Poey, Memorias, II, 1861, 203, Cuba.
2498. *Pempheris poeyi* Bean.
 Cuba.
Pempheris poeyi Bean, Proc. U. S. Nat. Mus., VIII, 1885, 229, Habana.
2499. *Pempheris mexicanus* Cuvier and Valenciennes.
 Pacific coast of Mexico, Acapulco.
Pempheris mexicana Cuvier and Valenciennes, Hist. Nat. Poiss., VII, 1831, 230 (308), Acapulco, Mexico.

Family 200. **LOBOTIDÆ**. Flashers or tripletails

- Genus 859. **LOBOTES** Cuvier.
Lobotes Cuvier, Règne Anim., ed. 2, II, 1829, 177 (*L. erate* Cuvier and Valenciennes).
2500. *Lobotes surinamensis* (Bloch). *Flasher*; *Tripletail*; *Dormeur*; *Black perch*; *Black grunt*.
 Atlantic coast from Cape Cod to Surinam; Mediterranean; Japan.
Holocentrus surinamensis Bloch, Naturgesch. Ausl. Fische, IV, 1790, 98, Surinam.
Bodianus triourus Mitchell, Trans. Lit. and Phil. Soc. N. Y., I, 1815, 418, Powells Hook, N. J.
Lobotes somnolentus Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830, 244 (324), pl. 126, San Domingo.
Lobotes erate Cuvier and Valenciennes, loc. cit., 322, Pondicherry.
Lobotes auctorum Günther, Cat., I, 1859, 338, Cuba; Calcutta; China.
- Genus 860. **VERRUGATO** Jordan.
Verrugato Jordan, Classn. Fishes, 1923, 195 (*Lobotes pacificus* Gilbert).

2501. *Verrugato pacificus* (Gilbert). *Berrugate*.

Panama.

Lobotes pacificus Gilbert, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2857, Panama.**Family 201. XENICHTHYIDÆ****Genus 861. XENICHTHYS Gill.***Xenichthys* Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 82 (*X. xanti* Gill).**2502. *Xenichthys xanti* Gill.**

Pacific coast of tropical America, from Cape San Lucas to Panama.

Xenichthys xanti Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 82, Cape San Lucas.*Xenichthys xenops* Jordan and Gilbert, Bull. U. S. Fish Com., I, 1881, 325, Panama.**Genus 862. XENISTIUS Jordan and Gilbert.***Xenistius* Jordan and Gilbert, Synopsis, 1883, 920 (*Xenichthys californiensis* Steindachner).**2503. *Xenistius californiensis* (Steindachner).**

Pacific coast of America, from San Diego southward to Guaymas, Mexico.

Xenichthys californiensis Steindachner, Ichth. Beitr., III, 1875, 3, San Diego.**Family 202. HOPILOPAGRIDÆ****Genus 863. HOPILOPAGRUS Gill.***Hoplopagrus* Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 78; and 1862, 253 (*Hoplopagrus guntheri* Gill.)**2504. *Hoplopagrus guntheri* Gill. *Pargo*.**

Pacific coast of tropical America, from Guaymas to Panama.

Hoplopagrus guntheri Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 78, and 1862, 253, Cape San Lucas, Lower California.**Family 203. LUTIANIDÆ. Snappers****Genus 864. LUTIANUS Bloch.***Lutianus* Bloch, Nat. Ausl. Fische, IV, 1790, 105 (*L. lutianus* Bloch).*Diacope* Cuvier, Mém. Mus. Hist. Nat. Paris, I, 1816, 360 (*Holocentrus bengalensis* Bloch, preoccupied).*Mesoprion* Cuvier (Règne Animal, 143), Cuvier and Valenciennes, Hist. Nat. Poiss., II, 1828, 441 (*L. lutianus* Bloch).*Genyorange* Cantor, Jour. Roy. Asiat. Soc. Bengal, XVIII, 1849, 12 (*Diacope sebæ* Cuvier and Valenciennes).*Neomænis* Girard, Proc. Acad. Nat. Sci. Phila., X, 1858 (1859), 167 (*Lobotes emarginatus* Baird and Girard = *Labrus griseus* Linnæus).*Hypoplites* Gill, loc. cit., XIV, 1862, 236 (*Mesoprion retrospinis* Cuvier and Valenciennes).*Evoplites* Gill, loc. cit., 236 (*Mesoprion pomacanthus* Bleeker, young of *L. kasmira*).*Lutjanus* Bloch and later writers, change of spelling; the word from the Indian "Lutjang."**Subgenus EVOPLITES Gill.****2505. *Lutjanus viridis* (Valenciennes).**

Rocky islands of the eastern Pacific; known from Galapagos, Tres Marias, and Revillagigedo Islands.

Diacope viridis Valenciennes, Voy. *Vénus*, 1855, 303, pl. 1, fig. 2 (very bad), Galapagos Islands.**Subgenus NEOMÆNIS Girard.****2506. *Lutjanus jordani* (Gilbert)**

Panama; Cocos Island.

Neomænis jordani Gilbert, in Jordan and Evermann, Fishes North and Mid. Amer., 1896, 1252, Panama.

- 2507. *Lutianus novemfasciatus* (Gill).** *Pargo prieto; Pargo moreno; Pargo negro.*
Pacific coast of tropical America; Cape San Lucas; Guaymas; Mazatlan; Punta Arenas; San Blas; Panama.
Lutjanus novemfasciatus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 251, Cape San Lucas, Lower California.
Mesoprion pacificus Bocourt, Ann. Sci. Nat. Paris, X, 1868, 223, Tauesco, Pacific coast of Guatemala.
Lutjanus prieto Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 353, Mazatlan.
- 2508 *Lutianus cyanopterus* (Cuvier and Valenciennes).** *Cubera.*
West Indies to Brazil.
Mesoprion cyanopterus Cuvier and Valenciennes, Hist. Nat. Poiss., II, 1828, 357 (472), Brazil.
? *Mesoprion pargus* Cuvier and Valenciennes, loc. cit., 358 (473), Porto Rico.
Lutjanus cubera Poey, Ann. Lyc. Nat. Hist. N. Y., X, 1871, 75, Cuba.
Lutjanus dentatus A. Duméril in Vaillant and Bocourt, Misc. Sci. Mex. Poiss., 1881, 125, Brazil.
- 2509. *Lutianus griseus* (Linnæus).** *Gray snapper; Mangrove snapper; Cabellero; Lawyer.*
West Indies; ranging from New York to Brazil.
Turdus pinus branchialis carens Catesby, Hist. Carolinas, II, 1743, 5, pl. 9, Bahamas.
Labrus griseus Linnæus, Syst. Nat., ed. X, 1758, 283, after Catesby.
Caballero Parra, Descr. Dif. Piezas, Hist. Nat., 1787, 52, pl. 25, fig. 1, Habana.
Sparus tetracanthus Bloch, Nat. Ausl. Fische, 1791, 116, Martinique.
Anthias caballero Bloch and Schneider, Syst. Ichth., 1801, 310, Cuba; after Parra.
Bodianus vivanet Lacépède, Hist. Nat. Poiss., IV, 1802, pl. 4, fig. 3, Martinique.
Mesoprion griseus Cuvier and Valenciennes, Hist. Nat. Poiss., II, 1828, 355 (469), San Domingo, not after Linnæus.
Lobates emarginatus Baird and Girard, 9th Smith. Rept., 1854 (1855), 332, Beaseley Point, N. J.
Lutjanus stearns Goode and Bean, Proc. U. S. Nat. Mus., I, 1878, 179, Pensacola, Fla.
- 2510. *Lutianus jocú* (Bloch and Schneider).** *Dog snapper; Jocú.*
West Indies, north to Florida Keys, south to Bahia; one young recorded from Woods Hole, Mass. (Nichols and Breder).
Anthias jocú Bloch and Schneider, Syst. Ichth., 1801, 310, Cuba; after Parra.
Jocú Parra, Descr. Dif. Piezas, Hist. Nat., I, 1787, 53, pl. 25, fig. 2, Cuba.
Mesoprion litura Cuvier and Valenciennes, Hist. Nat. Poiss., II, 1828, 353 (467), Cayenne; St. Thomas.
- 2511. *Lutianus apodus* (Walbaum).** *Schoolmaster; Caji.*
West Indies, north to Key West, south to Bahia; young casual at Woods Hole, Mass. (Nichols and Breder).
Perca apoda Walbaum, Artedi Piscium, 1792, 351; based on the "Schoolmaster" of Catesby, which, in the very bad plate, lacks the pectoral fin.
Caxis Parra, Descr. Dif. Piezas, Hist. Nat., 1787, 14, pl. 8, fig. 2, Habana.
Sparus caxis Bloch and Schneider, Syst. Ichth., 1801, 284, Habana; after Parra.
Bodianus striatus Bloch and Schneider, loc. cit., 1801, 335, pl. 65, West Indies, misprinted *albostratus* and *fasciatus*.
Lutjanus acutirostris Desmarest, Prem. Dec. Ichth., 1823, 12, pl. 3, Cuba.
Mesoprion cynodon Cuvier and Valenciennes, Hist. Nat. Poiss., II, 1828, 351 (465), Martinique, San Domingo.
Mesoprion linea Cuvier and Valenciennes, loc. cit., 354 (468), Cuba; San Domingo.
Mesoprion flavescens Cuvier and Valenciennes, loc. cit., 357 (472), Martinique.

2512. *Lutianus lutjanoides* (Poey).
Cuba
Ocyurus lutjanoides Poey, Ann. Lyc. Nat. Hist., IX, 1870, 319, Cuba;
known from one specimen, suspected to be a hybrid between *Ocyurus*
chrysurus and *Lutianus apodus*.
2513. *Lutianus brachypterus* (Cope).
Bahama Islands.
One specimen known
Lutjanus brachypterus Cope, Trans. Amer. Phil. Soc., XIV, 1871, 470,
New Providence, Bahama Islands; perhaps a hybrid of *Lutianus*
griseus and *L. synagris*.
2514. *Lutianus argentiventris* (Peters). *Pargo amarillo*
Pacific coast of tropical America; Galapagos and Cocos Islands.
Mesoprion argentiventris Peters, Berlin Monatsber., 1869, 704, Mazatlan.
2515. *Lutianus hastingsi* (Bean) *Bermuda silk snapper*.
Bermuda.
Neomænis hastingsi Bean, Bull. Amer. Mus. Nat. Hist., X, Art. III,
1898, 45, Bermuda.
2516. *Lutianus buccanella* (Cuvier and Valenciennes). *Sesú de lo alto*;
Orielle noire; *Boucanello*; *Blackfin snapper*.
West Indies; Habana
Mesoprion buccanella Cuvier and Valenciennes, Hist. Nat. Poiss., II,
1828, 344 (455), Martinique.
Mesoprion caudanotatus Poey, Memorias, I, 1854, pl. 3, fig. 3, 440, Cuba.
2517. *Lutianus vivanus* (Cuvier and Valenciennes). *Pargo de lo alto*; *Silk*
snapper; *West Indian snapper*.
West Indies; Habana.
Mesoprion vivanus Cuvier and Valenciennes, Hist. Nat. Poiss., II,
1828, 343 (454), Martinique
Mesoprion profundus Poey, Memorias, II, 1861, 150, Cuba.
Lutjanus torridus Cope, Trans. Amer. Phil. Soc., XIV, 1871, 469, St.
Kitts.
Lutjanus purpureus Poey, Enumeratio, 1875, 29.
2518. *Lutianus campechanus*⁵⁹ (Poey). *Red snapper*; *Mexican snapper*;
Pargo guachenarigo.
Long Island to Yucatan and Texas; a valued food fish.
Mesoprion campechanus Poey, Memorias, II, 1861, 149, Campeche.
2519. *Lutianus blackfordii* Goode and Bean. *Pensacola snapper*.
Lutjanus blackfordii Goode and Bean, Proc. U. S. Nat. Mus., I, 1878,
176, Pensacola, Fla.
2520. *Lutianus analis* (Cuvier and Valenciennes). *Muttonfish*; *Pargo*; *Pargo*
criollo.
West Indies; Pensacola to Brazil, rarely north to Woods Hole, common
and valued.
Anthias quartus rondeleti (the muttonfish) Catesby, Nat. Hist. Carolina,
II, 1743, 25, pl. 25, Bahamas.
Mesoprion analis Cuvier and Valenciennes, Hist. Nat. Poiss., II, 1828,
341 (452), San Domingo.
Mesoprion sobra Cuvier and Valenciennes, Hist. Nat. Poiss., II, 1828,
342 (453), Martinique.
Mesoprion isodon Cuvier and Valenciennes, loc. cit., IX, 1833, 328 (443),
San Domingo.
Mesoprion rosaceus Poey, Ann. Lyc. Nat. Hist. N. Y., IX, 1870, 317,
Cuba.
2521. *Lutianus colorado* (Jordan and Gilbert). *Pargo colorado*.
Pacific coast of Mexico, Guaymas to Panama.
Lutjanus colorado Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881,
338, name only, 351, 355, Mazatlan, Mexico.
2522. *Lutianus guttatus* (Steindachner). *Flamenco*.
Pacific coast of Mexico, from Guaymas to Panama.
Mesoprion guttatus Steindachner, Ichthyol. Notizen, IX, 1869, 18, pl. 8,
Mazatlan, Mexico.

⁵⁹ The common red snapper is here admitted provisionally as distinct from the Brazilian *Lutianus aya* from which it is said by Hildebrand to differ tangibly

- 2523. *Lutianus synagris* (Linnæus).** *Lane snapper; Bjaiaiba; Redtail snapper.*
West Indies; Florida Keys to Colon and Brazil
Sparus synagris Linnæus, Syst. Nat., Ed. X, 1758, 280, Carolinas; after Catesby.
Salpa purpurascens variegata (Lane snapper) Catesby, Nat. Hist. Carolina, II, 1743, 17, pl. 17, Bahamas
Sparus vermicularis Bloch and Schneider, Syst. Ichth., 1801, 275, Martinique, on a drawing by Plumier.
?Lutjanus aubrieti Desmarest, Prem. Dec. Ichth., 1823, 17, pl. 2, Cuba.
Mesoprion uninotatus Cuvier and Valenciennes, Hist. Nat. Poiss., II, 1828, 339 (449), pl. 39, San Domingo; Martinique.

2524. *Lutianus ambiguus* (Poey).

Cuba.

Mesoprion ambiguus Poey, Memorias, II, 1861, 152, pl. 12, fig. 4; pl. 13, fig. 8; Habana; two specimens known; suspected to be a hybrid of *Lutianus synagris* and *Ocyurus chrysurus*)

2525. *Lutianus mahogoni* (Cuvier and Valenciennes). *Ojanco, Mahogany snapper.*

West Indies; Habana.

Mesoprion mahogoni Cuvier and Valenciennes, Hist. Nat. Poiss., II, 1828, 338 (447), Martinique.

Mesoprion ricardi Cuvier and Valenciennes, loc. cit., 339 (447), Martinique? No locality given.

Mesoprion ojanco Poey, Memorias, II, 1861, 150, pl. 13, fig. 10, Cuba.

2526. *Lutianus megalophthalmus* (Evermann and Marsh).

Porto Rico.

Neomænis megalophthalmus Evermann and Marsh, Bull. U. S. Fish Com., XX, 1900 (1902), 177, Puerto Real, Porto Rico.

Genus 865. RAIZERO Jordan and Fesler.

Raizero Jordan and Fesler, Rept. U. S. Fish. Com., XVII, 1889 (1893), 438 (*Mesoprion aratus* Günther).

2527. *Raizero aratus* (Günther). *Pargo de raizero.*

Pacific coast of tropical America

Mesoprion aratus Günther, Proc. Zool. Soc. Lond., 1864, 145, Panama; Chiapam.

Genus 866. RABIRUBIA Jordan and Fesler.

Rabirubia Jordan and Fesler, Rept. U. S. Fish. Com., XVII, 1889 (1893), 438 (*Mesoprion inermis* Peters).

2528. *Rabirubia inermis* (Peters).

Pacific coast of America from Mazatlan to Panama.

Mesoprion inermis Peters, Berliner Monatsber., 1869, 705, Mazatlan, Mexico.

Genus 867. OCYURUS Gill. *Rabirubias*.

Ocyurus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 236 (*Sparus chrysurus* Bloch).

2529. *Ocyurus chrysurus* (Bloch). *Yellowtail; Rabirubia.*

West Indies, southern Florida to Brazil; single specimen recorded at Woods Hole, Mass.

Sparus chrysurus Bloch, Nat. Ausl. Fische, V, 1791, 28, Brazil; after Marcgrave.

Acara pilamba Marcgrave, Hist. Brasil, 1648, 155, Brazil.

Rabirubia Parra, Descr. Dif. Piezas, Hist. Nat., 1787, 42, pl. 20, fig. 1, Cuba.

Anthias rabirubia Bloch and Schneider, Syst. Ichth., 1801, 309, Cuba; after Parra.

Sparus semiluna Lacépède, Hist. Nat. Poiss., IV, 1802, 141, Martinique.

Mesoprion aurovittatus Agassiz, Spix, Pisc. Brasil., 1829, 121, pl. 66, Brazil

Ocyurus riggersmaei Cope, Trans. Amer. Phil. Soc., XIV, 1871, 468, fig. 4, St. Kitts.

Genus 868. RHOMBOPLITES Gill.

Rhomboplites Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 237 (*Centropomus aurorubens* Cuvier and Valenciennes).

2530. *Rhomboplites aurorubens* (Cuvier and Valenciennes). *Cagon de lo alto*.

West Indies, north to Charleston, south to Rio Janeiro.

Centropristis aurorubens Cuvier and Valenciennes, Hist. Nat. Poiss., III, 1829, 34 (45), Brazil, Martinique, and San Domingo.

Mesoprion elegans Poey, Memorias, II, 1861, 153, Cuba.

Aprion aricomus Jordan and Gilbert, Proc. U. S. Nat. Mus., VI, 1883, 142, Pensacola, Fla.

Genus 869. *TROPIDINIUS* Gill.

Tropidinnus Gill, in Poey, Synopsis, 1868, 296 (*Mesoprion arnullo* Poey = *Apsilus dentatus* Guichenot).

2531. *Tropidinnus dentatus* (Guichenot). *Arnullo*.

West Indies; Habana.

Apsilus dentatus Guichenot, in Ramon de la Sagra, Hist. Cuba, Poiss., 1853, 29, pl. 1, fig. 2, Habana.

Mesoprion arnullo Poey, Memorias, II, 1861, 154, Cuba.

Genus 870. *PRISTIPOMOIDES* Bleeker.

Pristipomoides Bleeker, Tijdschr. Ned. Ind., III, 1852, 574 (*Pristipomoides typus* Bleeker).

Platyinnus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 237 (*Mesoprion vorax* Poey = *Centropristis macrophthalmus* Muller and Troschel).

Bowersia Jordan and Evermann, Bull. U. S. Fish Com., XXII, 1902 (1903), 182 (*B. violescens* Jordan and Evermann).

Subgenus *PLATYINIUS* Gill.

2532. *Pristipomoides macrophthalmus* (Müller and Troschel). *Vorax*

West Indies, Habana.

Centropristis macrophthalmus Müller and Troschel, in Schomburgk, Hist. Barbados, 1848, 666, Barbados.

Mesoprion vorax Poey, Memorias, II, 1861, 151, Cuba.

Genus 871. *ETELIS* Cuvier and Valenciennes.

Etelis Cuvier and Valenciennes, Hist. Nat. Poiss., II, 1828, 93 (127) (*Etelis carbunculus* Cuvier and Valenciennes, an East Indian species).

Elastoma Swainson, Nat. Hist. Fish., Amphib., etc., II, 1839, 202 (*Etelis oculatus* Cuvier and Valenciennes).

Hesperanthias Lowe, Fishes of Madeira, 1843, 14 (*Serranus oculatus* Cuvier and Valenciennes).

Macrops Duméril, Mém. Acad. Sci. Paris, XXVII, 1856, 279 (*Serranus aculeatus* (oculatus) Cuvier and Valenciennes).

2533. *Etelis oculatus* ⁹⁰ (Cuvier and Valenciennes). *Cachucho*.

Warm seas; West Indies to Madeira; Hawaii.

Etelis carbunculus Cuvier and Valenciennes, Hist. Nat. Poiss., II, 1828, 94 (127), pl. 18, Seychelles Archipelago.

Serranus oculatus Cuvier and Valenciennes, loc. cit., II, 198 (266), pl. 32, Martinique.

?*Etelis evurus* Jordan and Evermann, Bull. U. S. Fish Com., XXII, 1902, 142, Hawaii.

Genus 872. *ETELIDES* Jordan and Thompson.

Etelides Jordan and Thompson, Bull. U. S. Bur. Fish., XXIV, 1904, 241 (*Anthias aquilonaris* Goode and Bean).

2534. *Etelides aquilonaris* (Goode and Bean).

Gulf of Mexico; Gulf Stream near Carolina coast.

Anthias aquilonaris Goode and Bean, Oceanic Ichth., 1895, 238, Gulf of Mexico.

Family 204. *VERILIDÆ*

Genus 873. *VERILUS* Poey.

Verilus Poey, Memorias, II, 1861, 124 (*V. sordidus* Poey).

2535. *Verilus sordidus* Poey. *Escolar chino*.

West Indies.

Verilus sordidus Poey, Memorias, II, 1861, 125, pl. 12, fig. 6, Cuba.

⁹⁰ This widely distributed and brilliantly colored fish seems to be of a single species throughout the warm seas. We let the American species stand, pending investigation, though we can not detect any difference from the common *evurus*, Hawaii, and *carbunculus* of Japan.

Family 205. HÆMULIDÆ

Genus 874. HÆMULON Cuvier. *Roncos* or *grunts*.

- Diabasis* Desmarest, Prem. Décade Ichth., 1823, 34 (*D. parra* Desmarest; name preoccupied in beetles).
Hæmulon Cuvier, Règne Anim., ed. 2, II, 1829, 175 (*elegans*, etc., restricted later to *Hæmulon elegans* Cuvier = *Sparus sciurus* Shaw).
Anarmostus Scudder, in Putnam, Bull. Mus. Comp. Zool., I, 1863, 12; name preoccupied in insects.
2536. *Hæmulon sexfaciatum* Gill. *Mojarra almejero*.
 Pacific coast of tropical America, Guaymas to Panama.
Hæmulon sexfasciatus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 254, Cape San Lucas.
Hæmulon maculosum Peters, Berliner Monatsber., 1869, 705, Mazatlan.
2537. *Hæmulon album* Cuvier and Valenciennes. *Margatefish*; *Jallao*; *Margaret grunt*.
 West Indies; Florida Keys to Brazil.
Perca marina gibbosa cinerea (margatefish) Catesby, Nat. Hist. Carolina, II, 1743, 2, pl. 2, Bahamas.
Perca gibbosa Walbaum, Artedi Pisc., 1792, 342, not of Linnæus, after Catesby.
Hæmulon album Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830, 179 (241), St. Thomas.
Hæmulon macrophthalum Gunther, Cat., I, 1859, 306, America.
2538. *Hæmulon mowbrayi* Jordan and Evermann.
 Key West, Fla.
Hæmulon chrysopterum Mowbray, N. Y. Zool. Soc. Bull., XVIII, No. 6, 1915, 1298, with fig., Key West; not of Cuvier, which is *Bathystoma rimator* Jordan and Swain.
Hæmulon mowbrayi Jordan and Evermann, Proc. Calif. Acad. Sci., 4th ser., XVI, Apr. 27, 1927, 505.
2539. *Hæmulon macrostomum* Günther. *Gray grunt*; *Striped grunt*.
 West Indies, north to Florida Keys.
Hæmulon macrostoma Gunther, Cat., I, 1859, 308, Jamaica.
Hæmulon fremebundum Goode and Bean, Proc. U. S. Nat. Mus., II, 1879, 340, Clearwater Harbor, Fla.
2540. *Hæmulon bonariense* Cuvier and Valenciennes. *Black grunt*; *Ponce prieto*.
 West Indies, south to Buenos Aires.
Hæmulon bonariense Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830, 174 (254), Buenos Aires.
Hæmulon canna Cuvier and Valenciennes, loc. cit., V, 173 (233), Martinique.
Hæmulon notatum Poey, Memorias, II, 1861, 179, Cuba.
Hæmulon retrocurrans Poey, Repertorio, II, 1868, 236, 461, Cuba.
Hæmulon continuum Poey, Enumeratio, 1875, 46, Cuba.
2541. *Hæmulon parra* (Desmarest). *Sailors' choice*; *Ronco blanco*; *Ronco prieto*; *Bastard margaret*.
 West Indies; southern Florida to Brazil; very common at Key West and Habana.
Diabasis parra Desmarest, Prem. Décade Ichth., 1823, 30, pl. 2, fig. 2, Habana.
Hæmulon caudimacula Cuvier, Règne Anim., ed. 2, II, 1829, 176, Brazil; Habana.
Hæmulon chromis Broussonet, in Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830, 180 (242), Jamaica.
Hæmulon acutum Poey, Memorias, II, 1861, 180, Cuba.
Hæmulon serratum Poey, loc. cit., 181, Cuba.
Hæmulon albidum Poey, loc. cit., 181, Cuba.
Hæmulon canna Agassiz in Spix, Pisc. Brasil., 1829, 130, pl. 69, Brazil; not of Cuvier and Valenciennes.

2542. *Hæmulon scudderi* Gill *Mojarra prieta*.
Pacific coast of tropical America, Guaymas to Panama.
Hæmulon scudderi Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 253,
Cape San Lucas.
Hæmulon brevisrostrum Gunther, Trans. Zool. Soc. Lond., VI, 1868, 418
(Nov. 27), Panama.
Hæmulon undecimale Steindachner, Ichth. Beitr., III, 1875, 11, Panama.
2543. *Hæmulon carbonarium* Poey *Ronco carbonero; Cæsar grunt*.
West Indies and Bermudas, south to Brazil; Habana.
Hæmulon carbonarium Poey, Memorias, II, 1861, 176, Cuba.
2544. *Hæmulon steindachneri* (Jordan and Gilbert) *Roncador ranado*.
Both coasts of tropical America; Guaymas to Panama; a similar
species (unnamed) recorded from St. Lucia and Rio Janeiro.
Diabasis steindachneri Jordan and Gilbert, Bull. U. S. Fish Com., I,
1881 (1882), 322, Panama and Mazatlan.
2545. *Hæmulon melanurum* (Linnæus). *Jeniguana; Cæsar grunt*.
West Indies; Habana and southward; Bush Key; Tortugas
Perca marina cauda nigra (blacktail) Catesby, Hist. Carolina, II, 1743,
7, pl. 7, fig. 2, Bahamas.
Perca melanura Linnæus, Syst. Nat., ed. X, 1758, 292, and ed. XII,
1766, 486, Bahamas; based on Catesby.
Hæmulon schranki Agassiz in Spix, Pisc. Brasil, 1829, 131, pl. 69a,
Brazil.
Hæmulon dorsale Poey, Memorias, II, 1861, 179, Cuba.
2546. *Hæmulon sciurus* (Shaw). *Yellow grunt; Ronco amarillo; Boar
grunt; Humpback grunt*.
West Indies; Florida Keys to Brazil.
Anthias formosus Bloch, Nat. Ausl. Fische, VI, 1792, 122, Antilles;
not *Perca formosa* of Linnæus as identified.
Sparus sciurus Shaw, General Zoology, IV, 1803, 439, pl. 64, Antilles;
based on the description and figure of Bloch.
? *Diabasis obliquatus* Bennett, Zool. Jour. London, V, 1837, 90, Jamaica.
? *Hæmulon similis* Castelnau, Anim. Nouv. Rares, II, 1855, Bahia.
Hæmulon luteum Poey, Memorias, II, 1861, 174, Cuba.
Hæmulon multilineatum Poey, loc. cit., 178, Cuba.
? *Hæmulon hiems* Haly, Ann. Nat. Hist., XV, 1875, 268, Aspinwall.
2547. *Hæmulon plumieri* (Lacépède). *Common grunt; Ronco ronco; Ronco
arará; Boar grunt; Squirrelfish; Ronco grande*.
West Indies; abundant from Cape Hatteras to Rio Janeiro.
Perca marina capite striato Catesby, Nat. Hist. Carolina, II, 1743, 6,
pl. 6, Bahamas.
Labrus plumieri Lacépède, Hist. Nat. Poiss., III, 1802, 480, pl. 2, fig. 2,
Martinique; on a copy of a drawing by Plumier, identified with this
species by Cuvier.
Guabicoara brasiliensis Marcgrave, Hist. Brasil., 1648, 163, Brazil.
Hæmulon formosum Cuvier, Règne Anim., ed. 2, II, 1829, 175, Mar-
tinique.
Hæmulon arcuatum Cuvier and Valenciennes, Hist. Nat. Poiss., IX,
1833, 356 (481), Charleston, S. C.
Hæmulon arara Poey, Memorias, II, 1861, 177, Cuba.
Hæmulon subarcuatum Poey, loc. cit., 419, Cuba.
2548. *Hæmulon flavolineatum* (Desmarest). *French grunt; Open-mouthed
grunt; Ronco condenado*.
West Indies; Florida Keys and Bermudas to Brazil.
Diabasis flavolineatus Desmarest, Prem. Décade Ichth., 1823, 35, pl. 2,
fig. 1, Cuba.
Hæmulon heterodon Cuvier, Règne Anim., ed. 2, II, 1829, 176, Cuba,
based on Desmarest.
Hæmulon xanthopteron Cuvier and Valenciennes, Hist. Nat. Poiss., V,
1830, 174 (254), Martinique.

Genus 875. BRACHYGENYS Scudder.

Brachygenys Scudder, in Poey, Enumeratio, 1875, 47 (*Hæmulon tænia-
tum* Poey = *Hæmulon chrysargyreum* Gunther).

- 2549. *Brachygenys chrysargyreus* (Gunther).**
Key West, Habana, and Trinidad.
Hæmulon chrysargyreum Gunther, Cat., 1859, 314, Trinidad.
Hæmulon læniatum Poey, Memorias, II, 1861, 182, Cuba.
- Genus 876. BATHYSTOMA** Scudder. *Tomtates*.
Bathystoma Scudder, in Putnam, Bull. Mus. Comp. Zool., I, 1863, 12; no definition. (*Hæmulon jenuano* Poey = *Hæmulon aurolineatum* Cuvier and Valenciennes); not *Bathystomus* Förster, 1862.
- 2550. *Bathystoma rimator* (Jordan and Swain).** *Tomtate*; *Redmouth grunt*; *Cæsar*; *Young grunt*.
West Indies; Cape Hatteras to Trinidad.
Hæmulon rimator Jordan and Swain, Proc. U. S. Nat. Mus., VII, 1884, 308, Charleston; Key West; Pensacola.
- 2551. *Bathystoma aurolineatum* (Cuvier and Valenciennes).** *Jeniguano*; *Tomtate*.
West Indies; Florida Keys to Brazil.
Hæmulon aurolineatum Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830, 176 (237), Brazil; San Domingo.
Hæmulon jenuano Poey, Memorias, II, 1861, 183, Cuba.
- 2552. *Bathystoma striatum* (Linnæus)** *White grunt*.
West Indies; Bermudas to Brazil.
Capeuna brasiliensis Marcgrave, Hist. Brasil., 1648, 155, Brazil (nonbinomial).
Perca striata Linnæus, Syst. Nat., Ed. X, 1758, 293, North America.
Grammistes truttatus Bloch and Schneider, Syst. Ichth., 1801, 188, Brazil, after Marcgrave.
Serranus capuena Lichtenstein, Abhandl. Berlin. Akad., 1820, 288, Brazil; after Marcgrave.
Hæmulon quadrilineatum Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830, 177 (238), pl. 120, San Domingo.
Hæmulon quinquelineatum Poey, Memorias, II, 1861, 419, Cuba.
- Genus 877. LYTTHRULON** Jordan and Swain.
Lythrulon Jordan and Swain, Proc. U. S. Nat. Mus., VII, 1884, 287 (*Hæmulon flaviguttatus* Gill).
- 2553. *Lythrulon flaviguttatum* (Gill).** *Peixe fonda*.
Pacific coast of tropical America, Guaymas to Panama.
Hæmulon flaviguttatus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 254, Cape San Lucas, Lower California.
Hæmulon margaritifera Günther, Proc. Zool. Soc. Lond., 1864, 147, Panama.
- 2554. *Lythrulon opalescens* Jordan and Starks.**
Mazatlan, Mexico.
Lythrulon opalescens Jordan and Starks, in Jordan, Proc. Calif. Acad. Sci., V, 1895, 459, pl. 40, Mazatlan, Mexico.
- Genus 878. ORTHOSTÆCHUS** Gill. *Striped grunts*.
Orthostæchus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 255 (*O. maculicauda* Gill).
- 2555. *Orthostæchus maculicauda* Gill.** *Roncador raro*.
Pacific coast of tropical America; Guaymas to Panama.
Orthostæchus maculicauda Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 225, Cape San Lucas, Lower California.
Hæmulon mazatlanum Steindachner, Ichth. Notizen, VIII, 1869, 12, Pl. VI, Mazatlan.
- Genus 879. PARACONODON** Bleeker.
Paraconodon Bleeker, Archiv. Neerl., XI, 1876, 272 (*Conodon pacifici* Günther).
- 2556. *Paraconodon pacifici* (Günther).**
Pacific coast of tropical America.
Conodon pacifici Günther, Proc. Zool. Soc. Lond., 1864, 147, Chiapam.
- 2557. *Paraconodon cæsius* (Jordan and Gilbert).**
Pacific coast of Mexico; Mazatlan and Acapulco; Bay of Panama.
Pomadasy cæsius Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 383, Mazatlan.

- 2558. *Paraconodon dovii* (Gunther).**
Pacific coast of tropical America at Mazatlan and Panama.
Pristipoma dovii Gunther, Proc. Zool. Soc. Lond., 1864, 23, Panama.
- Genus 880. ANISOTREMUS Gill.**
Anisotremus Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 105 (*Sparus virginicus* Linnæus).
Gentytremus Gill, loc. cit., XIV, 1862, 256 (*Pristipoma bilineatum* Cuvier and Valenciennes = *Anisotremus surinamensis* Bloch).
- Subgenus GENYTREMUS Gill.**
- 2559. *Anisotremus surinamensis* (Bloch). *Pompon.***
Tropical America, from Louisiana (New Orleans market) to Brazil.
?Lutjanus surinamensis Bloch, Naturgesch. Ausl. Fische, IV, 1790, 98, Surinam.
Pristipoma bilineatum Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830, 202 (271), pl. 122, Martinique.
Pristipoma melanopteryum Cuvier and Valenciennes, loc. cit., 203 (273), Brazil.
Hæmulon obtusum Poey, Memorias, II, 1861, 182, Habana.
Hæmulon labridum Poey, loc. cit., 1861, 419, Cuba.
- 2560. *Anisotremus interruptus* (Gill). *Mojarron.***
Pacific coast, Magdalena Bay to Panama and the Galapagos.
Gentytremus interruptus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1861, 256, Cape San Lucas, Lower California.
Pristipoma furthii Steindachner, Ichth. Beitr., V, 1876, 4, Panama.
- 2561. *Anisotremus bicolor* (Castelnau). *Maria prieta.***
Coast of Brazil; perhaps Cuba.
Pristipoma bicolor Castelnau, Anim. Amér. du Sud, Poiss., 1855, 8, pl. 2, fig. 2, Bahia, Brazil.
?Pristipoma trilineatum Poey, Memorias, II, 1861, 343, Habana, young.
Pristipoma brasiliense Steindachner, Sitzungsber. k. Akad. Wiss. Wien, 1863, 1013, Bahia.
- Subgenus ANISOTREMUS Gill.**
- 2562. *Anisotremus scapularis* (Tschudi).**
Coast of Peru; said to have been once taken at Mazatlan, a doubtful record.
Pristipoma scapulare Tschudi, Fauna Peruana, 12, 1845, Huacho, Peru.
?Diagramma melanospilum Kner, Sitzungsber. k. Akad. Wiss., 1807, 4, west coast of South America.
Pristipoma notatum Peters, Monatsber. Akad. Wiss. Berlin, 1869, 706, "angeblich aus Mazatlan."
- 2563. *Anisotremus davidsonii* (Steindachner). *Sargo raro.***
Coast of southern California.
Pristipoma davidsonii Steindachner, Ichth. Beitr., III, 1875, 6, San Diego.
- 2564. *Anisotremus spleniatum* (Poey).**
Habana.
Pristipoma spleniatum Poey, Memorias, II, 1861, 187, Habana.
- 2565. *Anisotremus tæniatus* Gill. *Catalina; Striped grunt.***
Pacific coast of tropical America; Magdalena Bay to Panama.
Anisotremus tæniatus Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 107, Panama.
- 2566. *Anisotremus virginicus* (Linnæus). *Porkfish; Catalineta.***
West Indies; Florida Keys to Brazil.
Guatucupa juba Marcgrave, Hist. Brasil., 1648, 147, Brazil.
Acara pinima Marcgrave, loc. cit., 1648, 152, Brazil.
Sparus virginicus Linnæus, Syst. Nat., ed. X, 1758, 281, South America.
?Sparus vittatus Bloch, Naturgesch. Ausl. Fische, V, 1791, 33, fig. 2, Brazil; after *Acara pinima* Marcgrave.
Perca juba Bloch, loc. cit., VI, 1792, 77, Brazil, after Marcgrave.
Grammistes mauritii Bloch and Schneider, Syst. Ichthyol., 1801, 185, after Bloch.

- ?*Pristipoma catharinæ* Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830, 201, 269, St. Catharine Island, Brazil.
Pristipoma acara-pinna Castelnau, Anim. Nouv. Rares, 1856, 8, Brazil.
Pristipoma rodo Cuvier and Valenciennes, loc. cit., 205 (274), Martinique, Brazil, Porto Rico, and San Domingo.
2567. *Anisotremus serrula* (Cuvier and Valenciennes). *Tête de roche*; *Petite scie*.
 Martinique.
Pristipoma serrula Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830, 203 (272), Martinique.
Pristipoma auratum Cuvier and Valenciennes, loc. cit., 203 (272), Martinique.
- Genus 881. **CONODON** Cuvier and Valenciennes.
Conodon Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830, 156 (*C. antillanus* Cuvier and Valenciennes=*Perca nobilis* Linnæus).
Cheloniger Plumier, in Lacépède, Hist. Nat. Poiss., V, 1803 (*Perca nobilis* Linnæus); name not accepted by Lacépède.
2568. *Conodon nobilis* (Linnæus).
 West Indies; coast of Texas to Brazil.
Perca nobilis Linnæus, Syst. Nat., Ed. X, 1758, 291, North America.
Scæna plumieri Bloch, Nat. Ausl. Fische, VI, 1792, 66, taf. 306, Martinique.
Scæna coro Bloch, loc. cit., 1792, 70, pl. 307, fig. 2, Brazil; after *Coro coro* Marcgrave.
Conodon antillanus Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830, 116 (156), Jamaica.
2569. *Conodon serrifer* Jordan and Gilbert.
 Lower California.
Conodon serrifer Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 351, Boca Soledad, Lower California.
- Genus 882. **BRACHYDEUTERUS** Gill. *Burritos*.
Brachydeuterus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 17 (*B. auratus*, an African species).
Hæmulopsis Steindachner, Ichth. Notizen, VIII, 1869, 9, Mazatlan (*Hæmulon corvinæformis* Steindachner).
2570. *Brachydeuterus nitidus* (Steindachner).
 Pacific coast of tropical America; Panama, Mazatlan, and the Gulf of California.
Pristipoma (*Hæmulopsis*) *nitidum* Steindachner, Ichth. Notizen, VIII, 1869, 5, Mazatlan.
2571. *Brachydeuterus leuciscus* (Gunther). *Burrito*.
 Pacific coast of tropical America; not rare at Mazatlan and Panama; south to northern Peru.
Pristipoma leuciscus Gunther, Proc. Zool. Soc. Lond., 1864, 147, San José de Nicaragua; Chiapam.
Pomadasis elongatus Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 352, Mazatlan, Mexico.
2572. *Brachydeuterus axillaris* (Steindachner). *Burro blanco*.
 Pacific coast of Mexico; Mazatlan and Guaymas
Pristipoma (*Hæmulopsis*) *axillare* Steindachner, Ichth. Notizen, VIII, 1869, 7, Mazatlan.
2573. *Brachydeuterus corvinæformis* (Steindachner).
 West Indies to Brazil; Jamaica.
Hæmulon corvinæforme Steindachner, Ichth. Notizen, VII, 1868, 16, Santos, Brazil.
- Genus 883. **RHENCUS** Jordan and Evermann.
Rhencus Jordan and Evermann, Check List, 1895, 387 (*Pristipoma panamense* Steindachner).

2574. *Rhencus panamensis* (Steindachner).
Pacific coast of tropical America; Panama and Mazatlan.
Pristipoma panamense Steindachner, Ichth. Beitr., III, 1875, 8, Panama.
- Genus 884. **POMADASYS** Lacépède. *Burros*.
Pomadasys Lacépède, Hist. Nat. Poiss., IV, 1803, 516 (*Sciæna argentea* Forskål).
Pristipomus Oken, Isis, 1817, 279 (*Lutjanus hasta* Bloch; after *les Pristipomes* Cuvier).
Pristipoma Cuvier and Valenciennes, changed spelling.
- Subgenus **PRISTOPOMUS** Cuvier.
2575. *Pomadasys bayanus* Jordan and Evermann.
Pacific coast of Panama, in fresh water.
Pristipoma humile Kner and Steindachner, Sitzgber. Akad. Wiss. Munch., 1863, 222, Rio Bayano, near Panama; name preoccupied by *Pristopoma humilis* Bowdich, Fishes of Madeira, 1825, 236
Pomadasys bayanus Jordan and Evermann, Fishes North and Mid. Amer., 1898, 1331, Rio Bayano, near Panama.
2576. *Pomadasys productus* (Poey).
Cuba
Pristipoma productum Poey, Memorias, II, 1861, 186, Habana.
2577. *Pomadasys macracanthus* (Günther). *Burro*.
Pacific coast of tropical America; Panama; Mazatlan; Chiapas, and Punta Arenas.
Pristipoma macracanthum Günther, Proc. Zool. Soc. Lond., 1864, 146, Chiapam.
2578. *Pomadasys grandis* Meek.
Lake Nicaragua
Pomadasys grandis Meek, Field Mus. Nat. Hist., Zool., VII, 1907, 116, Lake Nicaragua.
2579. *Pomadasys templei* Meek.
Valles, San Luis Potosí, Mexico.
Pomadasys templei Meek, Field Col. Mus., Zool., V, 1904, 201, Valles, San Luis Potosí, Mexico.
2580. *Pomadasys boschmæ* (Metzelaar).
West Indies.
Pristipoma boschmæ Metzelaar, Tropisch Atl. Vissch., 1919, 83, fig. 27; probably from Curaçao.
2581. *Pomadasys starri* Meek. *Burro*.
Perez, Vera Cruz, Mexico.
Pomadasys starri Meek, Field Col. Mus., Zool., V, 1904, 200, Perez, Vera Cruz, Mexico.
- Genus 885. **RHONCISCUS** Jordan and Evermann.
Rhonciscus Jordan and Evermann, Check List, 1895, 387 (*Pristipoma croco* Cuvier and Valenciennes).
2582. *Rhonciscus croco* (Cuvier and Valenciennes)
West Indies; Cuba to Brazil.
Pristipoma croco Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830, 197 (264), Martinique.
Pristipoma cultiferum Poey, Memorias, II, 1861, 185, Habana.
Pomadasys approximans Bean and Dresel, Proc. U. S. Nat. Mus., VII, 1884, 160, Jamaica.
2583. *Rhonciscus branicki* (Steindachner). *Burrito*.
Pacific coast of tropical America; Mazatlan to Peru.
Pristipoma branicki Steindachner, Denkschr. K. Akad. Wiss. Wien, XLI, 1879, 28, Tumbes, Peru.
2584. *Rhonciscus ramosus* (Poey).
West Indies; south to Brazil.
Pristipoma ramosum Poey, Memorias, II, 1861, 186, Habana.
Pristipoma boucardi Steindachner, Ichth. Notizen, VIII, 1869, 1, Cojimar River near Habana.

2585. *Rhonciscus sinuosus* (Eigenmann).
North coast of Colombia.
Pomadasys sinuosus Eigenmann, Proc. Amer. Phil. Soc., LVI, 1917, 683,
Patia, between Magna and Telembi.
- Genus 886. **ORTHOPRISTIS** Girard. *Pigfishes*.
Orthopristis Girard, U. S. Mex. Bound. Surv., Zool., 1859, 15 (*O. duplex*
Girard = *Perca chrysopterus* Linnaeus).
Pristocantharus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 256
(*Pristipoma cantharinum* Jenyns).
2586. *Orthopristis chalceus* (Gunther).
Pacific coast of tropical America, from Cape San Lucas to the Gala-
pagos.
Pristipoma chalceum Gunther, Proc. Zool. Soc. Lond., 1864, 146,
Panama.
Pristipoma kneri Steindachner, Ichth. Notizen, VIII, 1869, 3, Mazatlan,
Mexico.
2587. *Orthopristis reddingi* Jordan and Richardson.
La Paz, Lower California
Orthopristis reddingi Jordan and Richardson, in Jordan, Proc. Calif.
Acad. Sci., V, 1895, 509, pl. 41, La Paz, Lower California.
2588. *Orthopristis chrysopterus* (Linnaeus). *Pigfish; Sailors' choice, Hogfish;*
Red-mouthed grunt.
South Atlantic and Gulf coasts of the United States; young common
as far north as New York.
Perca chrysoptera Linnaeus, Syst. Nat., Ed. XII, 1766, 485, Charleston,
S. C.
Labrus fulvo-maculatus Mitchill, Trans. Lit. and Phil. Soc. N. Y.,
1814, 406, New York.
Pristipoma fasciatum Cuvier and Valenciennes, Hist. Nat. Poiss., V,
1830, 213 (285), New York.
Orthopristis duplex Girard, U. S. Mex. Bound. Surv., Zool., Fishes, 1859,
15, pl. 9, figs. 1 to 4, Indianola and Brazos Santiago, Tex.
2589. *Orthopristis poeyi* Scudder.
West Indies; Habana
Orthopristis poeyi Scudder, in Poey, Synopsis, 1868, 312, Habana.
- Genus 887. **MICROLEPIDOTUS** Gill.
Microlepidotus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 255 (*M.*
inornatus Gill).
Isaciella Jordan and Fesler, Rept. U. S. Fish Com., XVII, 1889-1891
(1893), 497 (*Pristipoma brevipinne* Steindachner).
2590. *Microlepidotus brevipinnis* (Steindachner).
Pacific coast of Mexico.
Pristipoma (Hæmulopsis) brevipinne Steindachner, Ichth. Notizen, VIII,
1869, 10, Mazatlan.
2591. *Microlepidotus inornatus* Gill. *Jopaton*.
Gulf of California; La Paz and Mazatlan.
Microlepidotus inornatus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862,
256, Cape San Lucas, Lower California.
- Genus 888. **GENYATREMUS** Gill.
Genyatremus Gill, Proc., Acad. Nat. Sci. Phila., XIV, 1862, 256 (*Di-*
agramma cavifrons Cuvier and Valenciennes = *Lutjanus luteus* Bloch).
2592. *Genyatremus luteus* (Bloch).
Lesser Antilles to Brazil.
Lutjanus luteus Bloch, Nat. Ausl. Fische, IV, 1795, 111, Martinique;
on a drawing by Plumier.
Grammistes hepatus Bloch and Schneider, Syst. Ichth., 1801, 187,
after Bloch.
Diagramma cavifrons Cuvier and Valenciennes, Hist. Nat. Poiss., I,
1830, 217 (290), pl. 123, Rio Janeiro.

Family 206. SPARIDÆ. Porgies; Pargos

Genus 889. OTRYNTER Jordan and Evermann.

Otrynter Jordan and Evermann, Check List, 1895, 388 (*Stenotomus caprinus* Bean).

2593. *Otrynter caprinus* (Bean).

Banks off the west coast of Florida.

Stenotomus caprinus Bean, Proc. U. S. Nat. Mus., V, 1882, 426, Snapper Banks off Pensacola, Fla.

Genus 890. STENOTOMUS Gill.

Stenotomus Gill, Canadian Nat., 1865, 266 (*Sparus argyrops* Linnæus = *Sparus chrysops* Linnæus).

Stenesthes Jordan, Copeia, Oct. 4, 1917 (same type); substitute name, there being an earlier genus *Stenotoma*.

2594. *Stenotomus versicolor* (Mitchill). *Common scup; Porgy; Scuppaug; Mishcuppaug; Bream; Fair maid.*

Atlantic coast of United States, from Cape Cod to North Carolina; common northward.

Labrus versicolor Mitchill, Trans. Lit. and Phil. Soc., I, 1815, 404, New York.

Sargus ambassis Gunther, Cat., I, 1859, 449, New York.

2595. *Stenotomus chrysops* (Linnæus). *Southern porgy.*

Southern Atlantic and Gulf coast of United States, Cape Hatteras to Texas.

Sparus argyrops Linnæus, Syst. Nat., Ed. XII, 1766, 471, Charleston; young.

Sparus chrysops Linnæus, loc. cit., 1766, 471, Charleston, S. C.

Sparus xanthurus Lacépède, Hist. Nat. Poiss., IV, 1803, 120, Charleston; after *argyrops* L.

Chrysophrys aculeata Cuvier and Valenciennes, Hist. Nat. Poiss., XI, 1830, 137, Charleston, S. C.

Genus 891. CALAMUS Swainson.

Calamus Swainson, Nat. Hist. Fishes, etc., II, 1839, 171 and 221 (*Pagellus calamus* Cuvier and Valenciennes).

Grammateus Poey, Ann. Lyc. Nat. Hist. N. Y., X, 1874 (*Pagellus macrops* Guichenot = *Pagellus penna* Cuvier and Valenciennes).

2596. *Calamus calamus* (Cuvier and Valenciennes). *Saucereye porgy; Pez de pluma.*

West Indies, north to Florida Keys.

Pagellus calamus Cuvier and Valenciennes, Hist. Nat. Poiss., VI, 1830, 152 (206), pl. 152, Martinique; San Domingo.

Calamus megacephalus Swainson, Nat. Hist. Fishes, II, 1839, 222, after Cuvier and Valenciennes.

Pagellus orbitarius Poey, Memorias, II, 1861, 201, Cuba.

2597. *Calamus bajonado* (Bloch and Schneider). *Jolt-head porgy; Bajonado.*

West Indies, north to Florida Keys.

Sparus bajonado Bloch and Schneider, ed. Bloch, Syst. Ichth., 1801, 284, West Indies; after Parra.

Bajonado Parra, Dif. Piezas Hist. Nat. Cuba, 1787, 13, lam. 8, Habana.

Pagellus caninus Poey, Memorias, II, 1861, 199, Habana.

Calamus plumatula Guichenot, Rev. Pagels in Mém. Soc. Sci. Nat. Cherbourg, XIV, 1868, 119, Martinique.

2598. *Calamus proridens* Jordan and Gilbert. *Littlehead porgy; Pez de pluma.*

West Indies, north to the Florida Keys.

Calamus proridens Jordan and Gilbert, Proc. U. S. Nat. Mus., VII, 1884, 150, Key West, Fla.

2599. *Calamus pennatula* Guichenot. *Littlehead porgy.*

West Indies.

Calamus pennatula Guichenot, Révision des Pagels in Mém. Soc. Sci. Nat. Cherbourg, XIV, 1868, 116, Martinique.

2600. *Calamus brachysomus* (Lockington). *Mojarra garabata*.
Gulf of California and neighboring waters, locally abundant from
Magdalena Bay to Panama.
Sparus brachysomus Lockington, Proc. U. S. Nat. Mus., III, 1880, 284,
Magdalena Bay, Lower California.
2601. *Calamus leucosteus* Jordan and Gilbert. *Whitebone porgy*.
South Atlantic coast of United States; known only from the markets
of Charleston, S. C.
Calamus leucosteus Jordan and Gilbert, in Jordan, Cat. Fish. N. Amer.,
in Rept. U. S. Fish Com., XIII, 1885, 879, Charleston, S. C.
2602. *Calamus macrops* Poey.
Cuba.
Calamus macrops Poey, Ann. Lyc. Nat. Hist. N. Y., X, 1872, 181,
Pl. VII, fig. 3, Habana.
2603. *Calamus penna* (Cuvier and Valenciennes). *Littlemouth porgy*; *Sheeps-
head porgy*; *Speckled porgy*.
Southern Florida to Brazil; known from southern Florida, Key West,
Rio Janeiro, St. Thomas, Habana, Camaru, and Rio Grande do Sul.
Pagellus penna Cuvier and Valenciennes, Hist. Nat. Poiss., VI, 1830,
154 (209), Brazil.
Pagellus microps Guichenot, in Ramon de la Sagra, Hist. Ile Cuba,
1853, 83, pl. 3, fig. 1, Habana.
Pagellus humilis Poey, Synopsis, 1868, 308, Habana.
Pagellus milneri Goode and Bean, Proc. U. S. Nat. Mus., II, 1879, 134,
Charlotte Harbor, Fla.
2604. *Calamus arctifrons* Goode and Bean. *Grass porgy*; *Shad porgy*.
Gulf of Mexico, from Pensacola to Key West; West Indies; Porto Rico.
Calamus arctifrons Goode and Bean, Proc. U. S. Nat. Mus., V, 1882,
425, Pensacola, Fla.
2605. *Calamus medius* (Poey).
West Indies; Habana.
Grammateus medius Poey, Ann. Lyc. Nat. Hist. N. Y., X, 1872, 183,
pl. 7, fig. 4, Habana.
2606. *Calamus kendalli* Evermann and Marsh. *Pluma*.
Porto Rico.
Calamus kendalli Evermann and Marsh, Rept. U. S. Fish Com., XXV,
1899, 354, Mayaguez, Porto Rico.
- Genus 892. *PAGRUS* Cuvier.
Pagrus Cuvier, Règne Animal, ed. 1, 1817, 272 (*Sparus argenteus* Bloch
and Schneider = *Sparus pagrus* Linnæus).
2607. *Pagrus pagrus* (Linnæus). *Red porgy*; *Besugo*; *Pargo colorado*.
Southern Europe and south Atlantic and Gulf coasts of the United
States; south to Uruguay; less common in America.
Sparus pagrus Linnæus, Syst. Nat., Ed. X, 1758, 279, southern Europe.
Sparus argenteus Bloch and Schneider, Syst. Ichth., 1801, 271, Europe.
Pagrus vulgaris Cuvier and Valenciennes, Hist. Nat. Poiss., VI, 1830,
104 (142), pl. 148, southern Europe.
- Genus 893. *LAGODON* Holbrook. *Chopa spina*; *Sailors' choice*.
Lagodon Holbrook, Ichth. South Carolina, 1855, 56 (*Sparus rhomboides*
Linnæus).
2608. *Lagodon rhomboides* (Linnæus). *Pinfish*; *Bream*; *Sailors' choice*;
Chopa spina; *Sargo*.
Atlantic and Gulf coasts of United States; Cape Cod to Cuba.
Sparus rhomboides Linnæus, Syst. Nat., Ed. XII, 1766, 470, Charleston,
S. C.
- Genus 894. *SALEMA* Jordan and Evermann.
*Salema*⁶¹ Jordan and Evermann, Check List, 1895, 390 (*Perca uni-
maculata* Bloch).

⁶¹ Not *Salema* Bowdich 1825 = *Kyphosus*.

2609. *Salema rhomboidalis* (Linnæus). *Salema*.
West Indies, north to Key West, south to Rio Janeiro.
Perca rhomboidalis Linnæus, Syst. Nat., Ed. X, 1758, Jamaica; after
Bream, Browne, Jamaica, 1756, 446.
Perca unimaculata Bloch, Nat. Ausl. Fische, VI, 1792, 75, Brazil.
Sparus salin Lacépède, Hist. Nat. Poiss., IV, 1802, 136; based on
Bloch.
Sargus humerimaculatus Quoy and Gaimard, Voy. Freycinet, Zool.,
1824, 297, Rio Janeiro.
Sargus flavolineatus Cuvier and Valenciennes, Hist. Nat. Poiss., VI,
1830, 44 (60), Cuba.
Cynædus brama Gronow, Cat. Fishes, ed Gray, 1854, 56, South Carolina.
Sargus caribæus Poey, Memorias, II, 1861, 197, Cuba.
2610. *Salema tridens* (Poey).
Cuba.
Sargus tridens Poey, Enumeratio, 1875, 57, Cuba.
- Genus 895. **ARCHOSARGUS** Gill. *Sheepsheads*.
Archosargus Gill, Canadian Nat., 1865, 266 (*Sparus probatocephalus*
Walbaum).
2611. *Archosargus probatocephalus* (Walbaum). *Sheepshead*; *Sargo raiado*.
Atlantic and Gulf coasts of the United States; Cape Cod to Florida
Keys and Texas.
Sparus probatocephalus Walbaum, Artedi Pisc., 1792, 295, New York;
based on *Sparus* of Schopf.
Sparus ovicephalus Bloch and Schneider, Syst. Ichth., 1801, 280, New
York.
Sargus ovis Mitchell, Trans. Lit. and Phil. Soc. N. Y., I, 1814, 392,
pl. 2, fig. 5, New York.
2612. *Archosargus aries* (Cuvier and Valenciennes).
Honduras to Brazil; Rio Janeiro; Maracaibo; Belize
Sargus aries Cuvier and Valenciennes, Hist. Nat. Poiss., VI, 1830, 42
(55), Rio Janeiro; Maracaibo.
- Genus 896. **DIPLODUS** Rafinesque.
Diplodus Rafinesque, Indice, 1810, 54 (*Sparus annularis* L.).
Sargus Cuvier, Règne Anim., I, 1817, 272 (*Sparus sargus* Linnæus);
preoccupied in insects.
2613. *Diplodus holbrookii* (Bean).
South Atlantic and Gulf coasts of the United States; Cape Hatteras to
Cedar Keys.
Sargus holbrookii Bean, Forest and Stream, June 13, 1878, 359, Charles-
ton, S. C.
2614. *Diplodus argenteus* (Cuvier and Valenciennes). *Sargo*.
West Indies; Florida and Bermudas, south to Argentina.
Sargus argenteus Cuvier and Valenciennes, Hist. Nat. Poiss., VI, 1830,
44 (60), Brazil.
Sargus caudimacula Poey, Memorias, II, 1861, 198, Cuba.
2615. *Diplodus sargus* (Linnæus). *Sargo*.
Coasts of southern Europe; Bermudas.
Sargus sargus Linnæus, Syst. Nat., Ed. X, 1758, 278, Mediterranean.
Sargus variegatus Lacépède, Hist. Nat. Poiss., IV, 1803, 207, Medi-
terranean.
Sargus raucus Geoffrey St. Hilaire, Descr. de l'Égypte, Poiss., 1813,
Pl. XVIII, fig. 1, coast of Egypt.
Sargus rondeletii Cuvier and Valenciennes, Hist. Nat. Poiss., VI, 1830,
10 (14), pl. 141, Mediterranean.
Sargus vitula Cuvier and Valenciennes, loc. cit., 35 (48), Naples.

Family 207. GIRELLIDÆ

Genus 897. **GIRELLA** ⁶² Gray.

- Girella* Gray, Illus. Indian Zool., II, 1833, 98 (*G. punctata* Gray).
Camarna Ayres, Proc. Calif. Acad. Nat. Sci., II, 1860 (1863), 81 (*C.*
nigricans Ayres).

⁶² *Melanichthys* Schlegel, 1844 = *Incisidens* Gill, 1862; differs from *Girella* in having two to four rows of
teeth and is probably a valid genus.

2616. *Girella nigricans* (Ayres). *Greenfish; California bluefish; White spot*.
Coast of southern California from Monterey to Cape San Lucas.
Camarina nigricans Ayres, Proc. Calif. Acad. Nat. Sci., II, 1860, 81, fig. 22, California.
Girella dorsomacula Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 244, Cape San Lucas.
- Genus 898. **INCISIDENS** Gill.
Incidens Gill, Proc. Acad. Sci. Phila., XIV, 1862, 244 (*Crenidens simplex* ⁶³ Richardson).
Aplodon Duméril, in Thominot, Bull. Soc. Philom. Paris, 1883, 141 (*Aplodon margaritifera* Duméril); name preoccupied.
2617. *Incidens simplicidens* (Osburn and Nichols).
Gulf of California.
Girella simplicidens Osburn and Nichols, Bull. Amer. Mus. Nat. Hist., XXXV, 1916, 165, fig. 10, San Francisco.

Family 208. **KYPHOSIDÆ**. Pilotfishes

- Genus 899. **KYPHOSUS** Lacépède.
Kyphosus Lacépède, Hist. Nat. Poiss., III, 1802, 114 (*K. bigibbus* Lacépède=*fuscus* Lacépède).
Pimelepterus Lacépède, Hist. Nat. Poiss., IV, 1803, 429 (*P. bosci* Lacépède).
Dorsuarius Lacépède, loc. cit., V, 1803, 482 (*D. nigrescens* Lacépède).
Xyster Lacépède, loc. cit., X, 484 (*X. fuscus* Lacépède).
Xysterus Rafinesque, Anal. Nature, 1815, 95; substitute for *Xyster*.
Selerma Bowdich, Fishes Madeira, 1825, 238 (*S. aurata* Bowdich).
Opisthistrus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 245 (*Scæna tahmel* Forskål).
Cyphosus of authors, corrected spelling.
2618. *Kyphosus analogus* (Gill). *Salema*.
Pacific coast of tropical America, Gulf of California to Panama.
Pimelepterus analogus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 245, Cape San Lucas.
2619. *Kyphosus incisor* (Cuvier and Valenciennes). *Chopa amarilla*.
West Indies to Brazil and the Canaries; Tortugas.
Pimelepterus incisor Cuvier and Valenciennes, Hist. Nat. Poiss., VII, 1831, 198 (266), Brazil.
? *Salema aurata* Bowdich, Excursion Madeira, 1825, 238, Bona Vista Island.
Pimelepterus flavo-lineatus Poey, Repertorio, I, 1866, 319, Habana.
2620. *Kyphosus elegans* (Peters). *Chopa*.
Pacific coast of tropical America, from Guaymas to Mazatlan; a species apparently the same in Hawaii.
Pimelepterus elegans Peters, Berlin. Monatsb., 1869, 707, Mazatlan, Mexico.
Pimelepterus sandvicensis Sauvage, Bull. Soc. Philom., July, 1880 (7), IV, 221, Sandwich Islands.
2621. *Kyphosus metzelaari* Jordan and Evermann.
Caribbean Sea.
Cyphosus elegans Metzelaar, Trop. Atl. Vissch., 1919, 44, Curaçao; Venezuela; not *Pimelepterus elegans* Peters.
This species, according to Metzelaar's account, is extremely close to *Kyphosus elegans* of the Pacific, but the scales are larger; 52 in the lateral line (67 in *elegans*), the teeth are also fewer, "15 in upper jaw"; in *elegans* they are "86 in each jaw."
Kyphosus metzelaari Jordan and Evermann, Proc., Calif. Acad. Sci., 4th Ser., XVI, Apr. 27, 1927, 506, Curaçao, Venezuela.

⁶³ This species with entire teeth is said to be the female of *Girella tricuspidata*. If this is true the genus *Incidens* may not be tenable.

- 2622. *Kyphosus sectatrix*** (Linnæus). *Rudderfish; Bermuda chub; Chub; Chopá blanca.*
West Indies, ranging from Cape Cod to Brazil, crossing the ocean to the Canary Islands; accidental in the Mediterranean; one taken at Palermo.
Perca marina sectatrix Catesby, Nat. Hist. Carolina, II, 1743, 8, Carolinas.
Perca sectatrix Linnæus, Syst. Nat., Ed. XII, 1766, 486 (correction), misprinted for *saltatrix*, after Catesby.
Chætodon cyprinaceus Gmelin, Syst. Nat., I, 1789, 1269, tropical America.
Pimelepterus bosqui Lacépède, Hist. Nat. Poiss., IV, 1803, 429, South Carolina.
Pimelepterus oblongior Cuvier and Valenciennes, Hist. Nat. Poiss., VII, 1831, 197 (264), locality unknown.
Pimelepterus bosci sicala Doderlein, Nat. Siciliano, Giornale Scienze Nat., III, 1883, 83, Gulf of Palermo.
- 2623. *Kyphosus lutescens*** (Jordan and Gilbert).
Revillagigedo Archipelago.
Pimelepterus lutescens Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 229, Braithwaite Bay, Socorro Island.
- Genus 900. SECTATOR** Jordan and Fesler.
Sectator Jordan and Fesler, Rept. U. S. Fish Com., XVII, 1889-91, 534 (*Pimelepterus ocyurus* Jordan and Gilbert).
- 2624. *Sectator ocyurus*** (Jordan and Gilbert).
Panama.
Pimelepterus ocyurus Jordan and Gilbert, Bull. U. S. Fish Com., I, 1881, 327, 328, Bay of Panama.
- Genus 901. HERMOSILLA** Jenkins and Evermann.
Hermosilla Jenkins and Evermann, Proc. U. S. Nat. Mus., XI, 1888, 144 (*H. azurea* Jenkins and Evermann).
- 2625. *Hermosilla azurea*** Jenkins and Evermann.
Gulf of California.
Hermosilla azurea Jenkins and Evermann, Proc. U. S. Nat. Mus., XI, 1888, 144, Guaymas, Mexico.
- 2626. *Hermosilla robusta*** Osburn and Nichols.
Gulf of California.
Hermosilla robusta Osburn and Nichols, Bull. Amer. Mus. Nat. Hist., XXXV, 1916, 166, fig. 11, Tiburon Island.

Family 209. INERMIIDÆ

- Genus 902. INERMIA** Poey.
Inermia Poey, Memorias, II, 1861, 193 (*I. vittata* Poey).
- 2627. *Inermia vittata*** (Poey). *Boga.*
Caribbean Sea, north to Cuba; often in large schools, off Venezuela.
Inermia vittata Poey, Memorias, II, 1861, 193, Habana.

Family 210. MÆNIDÆ

- Genus 903. SPICARA** Rafinesque.
Spicara Rafinesque, Caratteri, 1810, 51 (*S. flexuosa* Rafinesque = *Sparus smar* Linnæus).
Smaris Cuvier, Règne Animal, ed. 1, 1817, 269 (*Sparus smar* Linnæus).
- 2628. *Spicara martinica*** (Cuvier and Valenciennes).
West Indies; probably an error.
Smaris martinicus Cuvier and Valenciennes, Hist. Nat. Poiss., VI, 1830, 319 (424), Martinique; most likely an error, type probably from the Mediterranean.

Family 211. GERRIDÆ. Mojarras; Silver perch

- Genus 904. EUCINOSTOMUS** Baird and Girard. *Mojarritas.*
Eucinostomus Baird and Girard, Ninth Smithson. Rept., 1854, 344 (*E. argenteus* Baird and Girard = *Gerres gula* Cuvier and Valenciennes).

2629. *Eucinostomus gula* (Cuvier and Valenciennes). *Silver jenny*; *Mojarra de ley*; *Petite queue*; *Shad*.
Gerres gula Cuvier and Valenciennes, Hist. Nat. Poiss., VI, 1830, 349 (464), Martinique.
Eucinostomus argenteus Baird and Girard, Ninth Smith. Rept., 1854, 335, Bessley Point, N. J.
Eucinostomus gulula Poey, Enumeratio, 1875, 54, pl. 2, Habana.
Diapterus homonymus Goode and Bean, Proc. U. S. Nat. Mus., II, 1879, 340, Clearwater Harbor, Fla.
2630. *Eucinostomus pseudogula* Poey.
 Tortugas; West Indies to Brazil; Bermudas; St. Lucia; Bahia.
Eucinostomus pseudo-gula Poey, Enumeratio, 1875, 53, pl. 1, Cuba.
Gerres jonesi Günther, Ann. Mag. Nat. Hist., 1879, 150, Bermudas.
Eucinostomus harengulus Goode and Bean, Proc. U. S. Nat. Mus., II, 1879, 132, west Florida.
2631. *Eucinostomus californiensis* (Gill). *Mojarra cantilena*.
 Pacific coast of Mexico; Guaymas and Cape San Lucas to Panama.
Diapterus californiensis Gill, Proc. Acad. Nat. Sci., Phila., XIV, 1862, 245, Cape San Lucas, Lower California.
Diapterus gracilis Gill, loc. cit., 245, Cape San Lucas.
Diapterus dowii Gill, loc. cit., XV, 1863, 162, Panama.
2632. *Eucinostomus elongatus* Meek and Hildebrand.
 Panama.
Eucinostomus californiensis elongatus Meek and Hildebrand, Field Mus. Nat. Hist., Zool., XV, 1925, 586, Sobago Island, Panama.
- Genus 905. *ULÆMA* Jordan and Evermann.
Ulæma Jordan and Evermann, Proc. Calif. Acad. Sci., V, 1895, 471 (*Diapterus lefroyi* Goode).
2633. *Ulæma lefroyi* (Goode).
 West Indies, on sandy shores north to Cedar Keys; Bermudas; Cuba; Key West; recorded north at Beaufort, N. C.
Diapterus lefroyi Goode, Amer. Jour. Sci. Arts, 3d ser., VIII, 1874, 123, Bermudas.
2634. *Ulæma producta* (Poey).
 Cuba.
Eucinostomus productus Poey, Enumeratio, 1875, 55, Habana.
2635. *Ulæma meeki* (Eigenmann).
 Rio San Juan, in western Cuba.
Eucinostomus meeki Eigenmann, Bull. U. S. Fish Com., XXII, 1902, 229, fig. 10, San Juan River, just below its first ford, west Cuba; apparently a *Ulæma* having but two anal spines, the second hæmal spine not described.
- Genus 906. *GERRES* (Cuvier) Quoy and Gaimard. *Mojarras blancas*.
Gerres Cuvier in Quoy and Gaimard, Voyage Uranie, 1824, 293, restricted by Jordan 1919 to *Gerres vaignensis* Quoy and Gaimard = *Sciæna argyrea* Forskål, an ally of *Mugil cinereus* Walbaum. The only other species named in this earlier paper is *Gerres gula*, belonging to *Eucinostomus*. This use of the name *Gerres* from Cuvier's MS. antedates that in the Règne Animal, 1829, and unfortunately must stand.
Podager Gistel, Thierreich, IX, 1848, a substitute for *Gerres* regarded as preoccupied by *Gerris*; *Podager* is actually so, however.
Catochænum Cantor, Malayan Fishes, 1849, 55, same type, being a substitute for *Gerres*, deemed preoccupied by *Gerris*, a genus of insects.
Xystæma Jordan and Evermann, Proc. Calif. Acad. Sci., V, 1895, 471 (*Mugil cinereus* Walbaum).
2636. *Gerres cinereus* (Walbaum). *Mojarra de Casta*; *Mojarra blanca*; *Broad shad*.
 Coasts of tropical America; West Indies, north to Florida; Habana; Jamaica; Martinique; Bahamas; Barbados; Florida Keys.
Turdus cinereus peltatus Catesby, Nat. Hist. Carolinas, II, 1743, 11, Bahamas.
Mugil cinereus Walbaum, Arted. Pisc., 1792, 228, Bahamas; after Catesby

- Gerres aprion* Cuvier, Règne Animal, ed. 2, II, 1829, 188; based on Catesby.
Gerres zebra Muller and Troschel, in Schomburgk's Hist. Barbados, 1848, 668, Barbados.
Gerres squamipinnus Gunther, Cat., I, 1859, 349, Jamaica; Guatemala.
2637. *Gerres simillimus* Regan.
 Pacific coast of tropical America, Mazatlan to Panama.
Gerres simillimus Regan, Biol. Centrali-Amér., Pisces, 1906, 38, Panama.
2638. *Gerres havana* (Nichols).
 Miami, Florida; Cuba.
Xystæma havana Nichols, Bull. Amer. Mus. Nat. Hist., XXXI, 1912, 189, fig. 2, Marianas Beach, Habana.
- Genus 907. **MOHARRA** Poey.
Moharra Poey, Enumeratio, 1875, 50 (*Gerres rhombeus* Cuvier and Valenciennes).
2639. *Moharra rhombea* (Cuvier and Valenciennes).
 West Indies and Atlantic coast of tropical America; Jamaica; San Domingo; Martinique; Puerto Cabello; Habana; Aspinwall; Rio Magdalena; Santa Lucia; Bahia.
Gerres rhombeus Cuvier and Valenciennes, Hist. Nat. Poiss., VI, 1830, 345 (459), Martinique; San Domingo.
2640. *Moharra evermanni* (Meek and Hildebrand).
 Atlantic waters of Panama.
Diapterus evermanni Meek and Hildebrand, Field Mus. Nat. Hist., Zool., XV, 1925, 594, Pl. LXII, Mindi River near Mindi, Panama Canal Zone.
- Genus 908. **DIAPTERUS** Ranzani.
Diapterus Ranzani, Nov. Comment. Bonon., V, 1842, 340 (*Diapterus auratus* Ranzani, a species near *D. alsthostomus*).
2641. *Diapterus aureolus* (Jordan and Gilbert).
 Panama; only the type known.
Gerres aureolus Jordan and Gilbert, Bull. U. S. Fish Com., I, 1881, 328, Panama.
2642. *Diapterus axillaris* (Gunther).
 Pacific coast of Mexico.
Gerres axillaris Günther, Proc. Zool. Soc. Lond., 1864, 152, Chiapas.
2643. *Diapterus peruvianus* (Cuvier and Valenciennes). *Mojarra de las aletas amarillas*.
 West coast of tropical America; Mazatlan; Salina Cruz; Chiapas; Panama; Peru.
Gerres peruvianus Cuvier and Valenciennes, Hist. Nat. Poiss., VI, 1830, 351 (467), Payta, northern Peru.
Gerres brevirostris Sauvage, Bull. Soc. Philom. Paris, III, 1879, 208, Rio Guayas, Ecuador.
2644. *Diapterus olisthostomus* (Goode and Bean). *Irish pompano*; *Mutton-fish*.
 West Indies, north to southern Florida.
Gerres olisthostoma Goode and Bean, Proc. U. S. Nat. Mus., V, 1882, 423, Indian River, Fla.
- Genus 909. **EUGERRES** Jordan and Evermann.
Eugerres Jordan and Evermann, Proc. Calif. Acad. Sci., 4th ser., XVI, Apr. 27, 1927, 506 (*Gerres plumieri* Cuvier and Valenciennes).
2645. *Eugerres lineatus* (Humboldt). *Mojarra china*.
 Pacific coast of Mexico; Acapulco; Mazatlan; San Blas; Chiapas.
Smaris lineatus Humboldt, Observ. Zool., II, 1811, 185, pl. 46, Acapulco.
2646. *Eugerres brasiliensis* (Cuvier and Valenciennes). *Pataó*.
 West Indies to Brazil.
Gerres brasiliensis Cuvier and Valenciennes, Hist. Nat. Poiss., VI, 1830, 344, 458, Brazil.
Gerres patao Poey, Synopsis, VI, 1868, 320, Habana; scarcely distinguishable from *G. lineatus* of the Pacific coast.
Gerres embryx Jordan and Starks, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 1379, Charleston, S. C.; large example.

2647. *Eugerres brevimanus* (Gunther).
Pacific coast of tropical America and Panama Bay.
Gerres brevimanus Gunther, Proc. Zool. Soc. Lond., 1864, 152, Chiapam.
2648. *Eugerres plumieri* (Cuvier and Valenciennes). *Mojarra*.
Atlantic coast of tropical America and West Indies; Habana; Porto Rico; San Domingo; Jamaica; Pernambuco; Bahia; Aspinwall; Guatemala.
Gerres plumieri Cuvier and Valenciennes, Hist. Nat. Poiss., VI, 1830, 340 (452), pl. 467, Antilles; Porto Rico.
2649. *Eugerres mexicanus* (Steindachner). *Mexican mojarra*.
Rio Teapa, Mexico.
Gerres mexicanus Steindachner, Ueber eine Neue Gerres-Art aus Mexico, Verh. K. K. Ges. Wien, XIII, 1863, 383, Rio Teapa, Mexico.

Family 212. MULLIDÆ. Surmulletts

- Genus 910. *MULLUS* Linnæus. *Surmulletts*.
Mullus Linnæus, Syst. Nat., Ed. X, 1758, 299 (*M. barbatus* Linnæus).
2650. *Mullus auratus* Jordan and Gilbert. *Goatfish; Red mullet*.
Eastern coast of North America, Cape Cod to Pensacola; rare.
Mullus barbatus auratus Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 280, Pensacola, Fla.
- Genus 911. *UPENEUS* Cuvier. *Goatfishes*.
Upeneus Cuvier, Règne Animal, Ed. II, 1829, 157 (*vittatus; russelii; bifasciatus; trifasciatus*; first restricted by Bleeker to *bifasciatus*, an ally to *U. maculatus*).
Pseudupeneus Bleeker, Versl. Akad. Amsterdam, XIV, 1862, 134 (*P. prayensis* Bleeker).
Parupeneus Bleeker, Neder. Tijdschr. Dierk., I, 1863, 342 (*Mullus bifasciatus* Lacépède).
Mullhypeneus Poey, Repertorio, II, 1867, 160 (*Upeneus flavovittatus* Poey).
Brachymullus Bleeker, Arch. Neerl. Sci. Nat., XI, 1876, 333 (*Upeneus tetraspilus* Gunther).
Hypeneus Agassiz, corrected spelling.
2651. *Upeneus maculatus* (Bloch). *Red goatfish; Salmonete*.
West Indies and Brazil, Key West to Rio Janeiro; generally common.
Mullus maculatus Bloch, Naturgesch. Ausl. Fische, VII, 1893, 95, Brazil.
Upeneus punctatus Cuvier and Valenciennes, Hist. Nat. Poiss., III, 1829, 355, 482, Martinique.
2652. *Upeneus dentatus* Gill.
Pacific coast of Mexico, Cape San Lucas, La Paz, and the Tres Marias Islands.
Upeneus dentatus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 256, Cape San Lucas.
2653. *Upeneus parvus* Poey.
Cuba.
Upeneus parvus Poey, Memorias, I, 1853, 226, Cuba.
2654. *Upeneus martinicus* Cuvier and Valenciennes. *Yellow goatfish; Salmonete amarilla; King mullet*.
West Indies, north to Key West.
Upeneus martinicus Cuvier and Valenciennes, Hist. Nat. Poiss., III, 1829, 356 (483), Martinique.
Upeneus balteatus Cuvier and Valenciennes, loc. cit., 356 (483), Cuba.
Upeneus flavovittatus Poey, Memorias, I, 1853, 224, Cuba.
2655. *Upeneus xanthogrammus* Gilbert.
Coast of Lower California.
Upeneus xanthogrammus Gilbert, Proc. U. S. Nat. Mus., XIV, 1891, 553, La Paz, Lower California.

2656. *Upeneus grandisquamis* Gill. *Chvo.*
Pacific coast of Mexico and Central America, Guaymas to Panama.
Upeneus grandisquamis Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863,
168, western coast of Central America.
Upeneus tetraspilus Gunther, Proc. Zool. Soc. Lond., 1864, 148, Panama.
- Genus 912. **MULLOIDES** Bleeker.
Mulloides Bleeker, Verh. Bat. Gen., XXII, 1849, 12 (*Mullus flavolineatus* Lacépède).
2657. *Mulloides rathbuni* (Evermann and Jenkins).
Gulf of California.
Upeneus rathbuni Evermann and Jenkins, Proc. U. S. Nat. Mus., XIV,
1891, 158, pl. 2, fig. 4, Bay of Guaymas, Sonora.
- Family 213. **SCIÆNIDÆ**. Croakers; Roncadores
- Genus 913. **LARIMUS** Cuvier and Valenciennes.
Larimus Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830, 108 (145),
(*L. breviceps* Cuvier and Valenciennes).
Amblyscion Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 165 (*A. argenteus* Gill).
Monosira Poey, Anales de l'Hist. Nat. Esp., 1881, 326 (*M. stahli* Poey).
- Subgenus **LARIMUS**.
2658. *Larimus effulgens* Gilbert
Pacific coast of Mexico, Sonora to Panama.
Larimus effulgens Gilbert, in Jordan and Evermann, Fishes North and
Mid. Amer., 1898, 1421, San Juan Lagoon, Sonora
- Subgenus **AMBLYSCION** Gill.
2659. *Larimus argenteus* (Gill).
Panama.
Amblyscion argenteus Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 165,
western coast of Central America, the extreme form of the series.
2660. *Larimus acclivis* Jordan and Bristol.
Pacific coast of Mexico and Central America, from Sonora to Panama.
Larimus acclivis Jordan and Bristol (S. B.), in Jordan and Evermann,
Fishes North and Mid. Amer., 1898, 1422, San Juan Lagoon, Sonora.
2661. *Larimus breviceps* Cuvier and Valenciennes. *Cabezon*.
West Indies, south to Brazil.
Larimus breviceps Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830,
108 (145), pl. 140, Brazil; San Domingo.
Monosira stahli Poey, Anal. Soc. Española Hist. Nat., X, 1881, 326,
Pl. VI, Porto Rico.
2662. *Larimus pacificus* Jordan and Bollman.
Pacific Ocean, off coast of Colombia.
Larimus pacificus Jordan and Bollman, Proc. U. S. Nat. Mus., XII,
1889, 161, Albatross station 2802, 8° 38' N., 79° 31' 30" W., between
Galapagos Islands and Panama.
2663. *Larimus fasciatus* Holbrook. *Banded larimus*.
South Atlantic coast of the United States, from Chesapeake Bay to
Galveston, Tex.; not common.
Larimus fasciatus Holbrook, Ichth. South Carolina, 1855, 153, pl. 22,
fig. 1, Charleston, S. C.
- Genus 914. **ODONTOSCION** Gill.
Odontoscion Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 18 (*Corvina dentex* Cuvier and Valenciennes).
2664. *Odontoscion dentex* (Cuvier and Valenciennes). *Corvina*.
West Indies, north to the Tortugas.
Corvina dentex Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830,
103 (139), pl. 109, San Domingo.
2665. *Odontoscion xanthops* Gilbert.
Panama.
Odontoscion xanthops Gilbert in Jordan and Evermann, Check List,
1895, 396, Panama.

- Genus 915. CORVULA** Jordan and Eigenmann.
Corvula Jordan and Eigenmann, Review Sciænidæ Europe and America, in Rept. U. S. Fish Com., XIV, 1886, 377 (35), (*Johnius batabanus* Poey).
2666. *Corvula batabana* (Poey).
 Cuba and Porto Rico.
Johnius batabanus Poey, Memorias, II, 1861, 184, Batabano, south coast of Cuba.
- Genus 916. VACUOQUA** Jordan and Evermann.
Vacuogua Jordan and Evermann, Proc. Calif. Acad. Sci., 4th ser., XVI, Apr. 27, 1927, 506 (*Corvina macrops* Steindachner).
 This genus differs from the aberrant *Corvula batabana* in having the deeper, symmetrical body and the silvery coloration of *Bairdiella* and related species.
2667. *Vacuogua macrops* (Steindachner). *Vacuogua*.
 Pacific coast of tropical America; Mazatlan to Panama.
Corvina macrops Steindachner, Ichth. Beitr., III, 1875, 24, fig. 2. Panama.
2668. *Vacuogua sialis* (Jordan and Eigenmann).
 Florida Keys.
Corvula sialis Jordan and Eigenmann, Rept. U. S. Fish Com., XIV, 1886, 379, Key West, Fla.
2669. *Vacuogua subæqualis* (Poey).
 West Indies.
Corvina subæqualis Poey, Ann. Lyc. Nat. Hist. N. Y., XI, 1875, 58, Cuba.
2670. *Vacuogua sanctæ-luciæ* (Jordan).
 West Indies.
Corvula sanctæ-luciæ Jordan, Proc. U. S. Nat. Mus., XII, 1889, 649, Port Castries, St. Lucia.
- Genus 917. ELATTARCHUS** Jordan and Evermann.
Elattarchus Jordan and Evermann, Check List, 1895, 397 (*Odontoscion archidum* Jordan and Gilbert).
2671. *Elattarchus archidum* (Jordan and Gilbert).
 Panama.
Odontoscion archidum Jordan and Gilbert, Bull. U. S. Fish Com., I, 1881, 317, Panama.
- Genus 918. BAIRDIELLA** Gill. *Mademoiselles*
Bairdiella Gill, Cat. Fish. E. Coast N. Amer., Suppl. to Proc. Acad. Nat. Sci. Phila., XIII, 1861, 33 (*Bodianus argyroleucos* Mitchell = *Dipterodon chrysurus* Lacépède).
2672. *Bairdiella chrysura* (Lacépède). *Mademoiselle*; *Yellowtail*; *Silver perch*.
 South Atlantic and Gulf coasts of United States, north to New York; very abundant on our sandy shores from Long Island to Texas.
Caranx chrysurus Lacépède, Hist. Nat. Poiss., III, 1802, 64, South Carolina; after Linnæus.
Perca punctata Linnæus, Syst. Nat., Ed. XII, 1766, 482, in part, South Carolina.
Bodianus argyro-leucos et *exiguus* Mitchell, Trans. Lit. Phil. Soc. N. Y., I, 1815, 417, pl. 6, fig. 9, New York.
Bodianus pallidus Mitchell, loc. cit., 420, New York.
Homoprion subtruncatus Gill, Cat. Fish. E. Coast N. Amer., Suppl. to Proc. Acad. Nat. Sci. Phila., XIII, 1861, 33, South Carolina; after Holbrook.
2673. *Bairdiella ensifera* (Jordan and Gilbert).
 Panama; common.
Sciæna ensifera Jordan and Gilbert, Bull. U. S. Fish Com., I, 1881, 313, Bay of Panama; Punta Arenas.
Corvina fulgens Vaillant, Miss. Sci. au Mexique, 1883, 164, Pacific coast of Mexico.

2674. *Bairdiella icistia* (Jordan and Gilbert). *Corbineta*
Pacific coast of Mexico; rather common about Mazatlan.
Sciæna icistia Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 356, Mazatlan.
2675. *Bairdiella ronchus* (Cuvier and Valenciennes). *Ronco*, Ground drummer.
Atlantic coasts of tropical America; generally common in the West Indies and along the coast of Brazil.
Corvina ronchus Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830, 79 (107), Maracaibo; Surinam.
2676. *Bairdiella bedoti* (Regan).
Cuba.
Sciæna (Bairdiella) bedoti Regan, Rev. Suisse Zool., XIII, 1905, 391, Pl. VI, Cuba.
- Genus 919. *NECTOR* Jordan and Evermann.
Nector Jordan and Evermann, Fishes North and Mid. Amer., 1898, 1432 (*Corvina chrysoleuca* Gunther).
2677. *Nector armatus* (Gill).
Both coasts of tropical America; not uncommon on the Pacific coast about Panama, and equally abundant on the Atlantic coast.
Bairdiella armata Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 164, west coast of Central America.
Corvina acutirostris Steindachner, Ichth. Beitr., III, 1875, 28, pl. 4, Panama.
2678. *Nector veræ-crucis* (Jordan and Dickerson).
Gulf of Mexico, Vera Cruz.
Bairdiella veræ-crucis Jordan and Dickerson, Proc. U. S. Nat. Mus., XXXIV, 1908, 16, fig. 1, Vera Cruz, Mexico.
2679. *Nector alutus* (Jordan and Gilbert).
Pacific coast of Central America.
Sciæna aluta Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 232, La Union, Salvador.
2680. *Nector chrysoleucus* (Gunther).
Panama.
Corvina chrysoleuca Gunther, Trans. Zool. Soc. Lond., VI, 1868 (Nov. 27), 387, 427, pl. 67, fig. 1, Panama.
- Genus 920. *STELLIFER* (Cuvier) Oken.
Les Stelfères Cuvier, Règne Anim., Ed. I, 1817, 283 (*Bodianus stellifer* Bloch).
Stellifer (Cuvier) Oken, Isis, I, 1817, 1182 (*Bodianus stellifer* Bloch).
Stelliferus Stark, Elem. Nat. Hist., I, 1828, 459 (*Bodianus stellifer* Bloch).
Homoprion Holbrook, Ichth. South Car., 1st ed. (mostly destroyed by fire), 1855, 168 (*Homoprion lanceolatus* Holbrook).
2681. *Stellifer stellifer* (Bloch).
Coasts of Guiana and Brazil.
Bodianus stellifer Bloch, Naturgesch. Ausl. Fische, IV, 1790, 55, Cape of Good Hope.
Corvina trispinosa Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830, 80 (109), Brazil; Cayenne.
2682. *Stellifer lanceolatus* (Holbrook).
South Atlantic and Gulf coasts of United States, Charleston to Texas.
Homoprion lanceolatus Holbrook, Ichth. South Carolina, Ed. I, 1855, 168, pl. 23, Port Royal Sound, S. C.
2683. *Stellifer ericymba* (Jordan and Gilbert).
Panama.
Sciæna ericymba Jordan and Gilbert, Bull. U. S. Fish Com., I, 1881, 311, Bay of Panama.
2684. *Stellifer microps* (Steindachner).
Coast of Brazil and Guiana.
Corvina microps Steindachner, Ichth. Notizen, I, 1864, 6, pl. 2, fig. 1, Guiana.
Corvina stellifera Günther, Cat., II, 1860, 299, West Indies (not *Bodianus stellifer* Bloch).

2685. *Stellifer mindii* Meek and Hildebrand.
Atlantic coast of Panama.
Stellifer mindii Meek and Hildebrand, Field Mus. Nat. Hist., Zool., XV, 1925, 626, Pl. LXVI, fig. 2, Mindi Reef, near Colon.
- Genus 921. ZESTIS Gilbert.
Zestis Gilbert, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 1439 (*Stellifer oscitans* Jordan and Gilbert).
2686. *Zestis oscitans* (Jordan and Gilbert).
Panama.
Sciæna oscitans Jordan and Gilbert, Bull. U. S. Fish Com., I, 1881, 312, Bay of Panama.
2687. *Zestis furthii* (Steindacher).
Panama.
Corvina (*Homoprion*) *furthii* Steindachner, Ichth. Beitr., III, 1875, 26, fig. 3, Panama.
2688. *Zestis melanochir* (Eigenmann).
North coast of Colombia.
Stellifer melanochir Eigenmann, Proc. Am. Phil. Soc., LVI, 1917, 682, Tumneo.
- Genus 922. ZESTIDIUM Gilbert.
Zestidium Gilbert, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 1439 (*Stellifer illecebrosus* Gilbert).
2689. *Zestidium illecebrosus* (Gilbert).
Panama.
Stelliferus illecebrosus Gilbert, in Jordan and Evermann, Check List, 1895, 393, and Fishes North and Mid. Amer., 1896, 1443, Panama.
2690. *Zestidium colonense* (Meek and Hildebrand).
Coral reefs near Colon, Atlantic side of Isthmus of Panama.
Stellifer colonensis Meek and Hildebrand, Field Mus. Nat. Hist., Zool., XV, 1925, 623, Mindi Reef, Colon.
- Genus 923. STELLICARENS Gilbert.
Stellicarens Gilbert, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 1445 (*Stellifer zestocarus* Gilbert).
2691. *Stellicarens zestocarus* (Gilbert).
Panama.
Stelliferus zestocarus Gilbert, in Jordan and Evermann, Check List, 1895, 398, and Fishes North and Mid. Amer., 1896, 1445, Panama.
- Genus 924. OPHIOSCION Gill.
Ophioscion Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 164 (*Ophioson typicus* Gill).
2692. *Ophioscion adustus* (Agassiz).
West Indies to coast of Brazil.
Corvina adusta Agassiz, in Spix, Pisc. Brasil., 1829, 126, pl. 70, Brazil.
2693. *Ophioscion punctatissimus* Meek and Hildebrand.
Panama.
Ophioscion punctatissimus Meek and Hildebrand, Field Mus. Nat. Hist., Zool., XV, 1925, pt. 2, 644, Pl. LXVIII, Panama Canal at Cristobal.
2694. *Ophioscion typicus* Gill.
Panama.
Ophioscion typicus Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 165, west coast Central America.
Corvina ophioscion Günther, Trans. Zool. Soc. Lond., VI, 1868 (Nov. 27), 387, 428, Panama.
2695. *Ophioscion strabo* Gilbert.
Panama.
Ophioscion strabo Gilbert, Proc. U. S. Nat. Mus., XIX, 1896, 444, San Juan Lagoön, south of Guaymas, Mexico.

2696. *Ophioscion simulus* Gilbert.

Panama.

Ophioscion simulus Gilbert, in Jordan and Evermann, Check List, 1895, 398, and Fishes North and Mid. Amer., 1896, 1449, Panama.2697. *Ophioscion imiceps* (Jordan and Gilbert).

Panama.

Sciæna imiceps Jordan and Gilbert, Bull. U. S. Fish Com., I, 1881, 309, Bay of Panama.2698. *Ophioscion scierus* (Jordan and Gilbert).

Pacific coast of tropical America, from Mazatlan to Panama.

Sciæna sciera Jordan and Gilbert, Proc. U. S. Nat. Mus., VII, 1884, 480, Panama.Genus 925. *SIGMURUS* Gilbert.*Sigmurus* Gilbert, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 1446 (*Corvina vermicularis* Günther).2699. *Sigmurus vermicularis* (Günther).

Panama.

Corvina vermicularis Günther, Trans. Zool. Soc. Lond., VI, 1868 (Nov. 27), 387, 427, pl. 67, fig. 2, Panama.Genus 926. *SCIÆNOPS* Gill. *Red drums.**Sciænops* Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 30 (*Perca ocellata* Linnæus).2700. *Sciænops ocellata* (Linnæus). *Red drum; Channel bass; Redfish; Pescado colorado; Bull redfish; Bass; Red bass; Sea bass; Spotted bass; Spottail.*
South Atlantic and Gulf coasts of the United States, New York to Texas; very abundant south.*Perca ocellata* Linnæus, Syst. Nat., Ed. XII, 1766, 483, South Carolina.
Lutjanus triangulum Lacépède, Hist. Nat. Poiss., IV, 1802, 181, pl. 24, fig. 3, Sumatra.*Sciæna imberbis* Mitchill, Trans. Lit. and Phil. Soc. New York, 1815, 411, New York.Genus 927. *CALLAUS* Jordan.*Callaus* Jordan, Rept. U. S. Fish Com., XIV, 1886, 401, 406 (59) (*Corvina deliciosa* Tschudi).2701. *Callaus deliciosa* (Tschudi).

Pacific coast of South America, from Panama to Peru.

Corvina deliciosa Tschudi, Fauna Peruana, Ichthyol., 1845, 8, Peru.Genus 928. *RHINOSCIION* ⁶⁴Gill. *Red roncadors.**Rhinoscion* Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 17 (*Ambiodon saturnus* Girard).2702. *Rhinoscion saturnus* (Girard). *Red roncadors; Black croaker.*

Coast of southern California, from Santa Barbara to Cedros Island.

Ambiodon saturnus Girard, U. S. Pac. R. R. Surv., 1858, 98, San Diego, Calif.*Corvina* (*Johnius*) *jacobi* Steindachner, Ichth. Beitr., VIII, 1879, 3, San Diego; young.Genus 929. *RONCADOR* Jordan and Gilbert.*Roncador* Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 28 (*Corvina stearnsi* Steindachner).2703. *Roncador stearnsi* (Steindachner). *Roncador.*

Coast of southern California, north to Santa Barbara.

Corvina stearnsi Steindachner, Ichth. Beitr., III, 1875, 22, San Diego, Calif.Genus 930. *LEIOSTOMUS* Lacépède. *Goodies.**Leistomus* Lacépède, Hist. Nat. Poiss., IV, 1803, 439 (*L. xanthurus* Lacépède).*Leistomus* authors, revised spelling.

⁶⁴ This genus is very close to the European genus *Corvina* on the one hand and to the Peruvian *Chelotrema* on the other, but probably deserves to stand alone. There is no genuine species in America of *Sciæna* as now restricted.

2704. *Leiostomus xanthurus* Lacépède. *Spot; Goody; Postcroaker; Oldwife; Lafayette; Cape May goody; Porgy; Yellowtail.*
South Atlantic and Gulf coasts of United States; Cape Cod to Texas; once doubtfully recorded from Martinique.
Leiostomus xanthurus Lacépède, Hist. Nat. Poiss., IV, 1802, 439, pl. 10, fig. 1, Carolina
Mugil obliquus Mitchill, Trans. Lit. Phil. Soc. New York, 1815, 405, New York.
Sciæna multifasciata LeSueur, Jour. Acad. Nat. Sci. Phila., II, 1821, 255, east Florida
Leiostomus humeralis Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830, 105 (141), pl. 110, New York.
- Genus 931. **PACHYPOPS** Gill.
Pachypops Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 87 (*Micropogon trifilis* Muller and Troschel).
2705. *Pachypops furcraea* (Lacépède).
Rivers and estuaries of Guiana.
Perca furcraea Lacépède, Hist. Nat. Poiss., IV, 1802, 398, 424, Surinam.
Corvina biloba Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830, 83 (112), habitat unknown.
- Genus 932. **GENYONEMUS** Gill.
Genyonemus Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 87 (*Leiostomus lineatus* Ayres).
2706. *Genyonemus lineatus* (Ayres). *Little roncadore; Kingfish; Croaker.*
Coast of southern California, San Francisco to Cedros Island.
Leiostomus lineatus Ayres, Proc. Calif. Acad. Nat. Sci., I, 1855, 24, San Francisco.
- Genus 933. **MICROPOGON** Cuvier and Valenciennes. *Croaker.*
Micropogon Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830, 158 (213) (*M. lineatus* Cuvier and Valenciennes = *Perca undulata* Linnæus).
Micropogonias Bonaparte, Ittiologia Generale, 1831, 104 (*Perca undulata* Linnæus; substitute for *Micropogon* said to be preoccupied; but the genus of birds so named dates from 1838).
2707. *Micropogon undulatus* (Linnæus). *Croaker; Roncodina; Corvina; Hardhead.*
South Atlantic and Gulf coasts of United States; Cape Cod to Texas.
Perca undulata Linnæus, Syst. Nat., Ed. XII, 1766, 483, South Carolina.
Sciæna croker Lacépède, Hist. Nat. Poiss., IV, 1802, 309, Carolinas.
Bodianus costatus Mitchill, Trans. Lit. Phil. Soc. New York, 1815, 417, New York.
Micropogon lineatus Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830, 160 (215), pl. 119, New York.
2708. *Micropogon furnieri* (Desmarest). *Verrugato; Whitemouth drummer.*
West Indies and coasts of South America.
Umbrina furnieri Desmarest, Première Décade Ichth., 22, pl. 2, fig. 3, 1823, 182, Habana.
? *Micropogon argenteus* Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830, 162 (218), Surinam.
2709. *Micropogon megalops* Gilbert.
Gulf of California.
Micropogon megalops Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 64, Gulf of California in 14 fathoms at Albatross station 3021.
2710. *Micropogon ectenes* Jordan and Gilbert. *Verrugate.*
Pacific coast of Mexico, Mazatlan.
Micropogon ectenes Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 355, Mazatlan.
2711. *Micropogon altipinnis* Günther.
Panama.
Micropogon altipinnis Günther, Proc. Zool. Soc. Lond., 1864, 149, San Jose; Panama; Chiapam.

Genus 934. UMBRINA Cuvier.

Umbрина Cuvier, Règne Anim., Ed. I, II, 1817, 297 (*Scizæna cirrhosa* Linnæus).

Attilus Gistel, Naturgesch. d. Thierreichs, 1848, 109 (*Scizæna cirrhosa* Linnæus).

2712. *Umbрина broussonnetii* Cuvier and Valenciennes.

West Indies; Florida to Brazil.

Umbрина broussonnetii Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830, 139 (187), Jamaica.

2713. *Umbрина coroides* Cuvier and Valenciennes.

Southern Florida to the West Indies and Brazil.

Umbрина coroides Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830, 139 (187), Brazil.

2714. *Umbрина gracilicirrhus* Metzelaar.

Coast of Venezuela.

Umbрина gracilicirrhus Metzelaar, Tropisch Atlantisch Vissch., 1919, 72, coast of Venezuela.

**2715. *Umbрина roncadior* Jordan and Gilbert. *Yellow-finned roncadior*;
*Yellow-tailed croaker***

Coast of southern California, from Point Conception to Guaymas.

Umbрина roncadior Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 277, Pequena Bay, west coast of Lower California.

2716. *Umbрина xanti* Gill *Codorniz*.

Pacific coast of tropical America, Cape San Lucas to Panama.

Umbрина xanti Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 257, Cape San Lucas.

Umbрина analis Gunther, Trans. Zool. Soc. Lond., VI, 1868 (Nov. 27), 387, 426. Panama.

2717. *Umbрина sinaloæ* Scofield.

Pacific coast of Mexico; Mazatlan.

Umbрина sinaloæ Scofield, Proc. Calif. Acad. Sci., VI, 1896, 220, Pl. XXV, Mazatlan, Mexico.

2718. *Umbрина dorsalis* Gill.

Pacific coast of Mexico.

Umbрина dorsalis Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 257, Cape San Lucas

Genus 935. MENTICIRRHUS Gill. *Kingfishes*

Menticirrhus Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 86 (*Perca alburnus* Linnæus = *Cyprinus americanus* Linnæus).

**2719. *Menticirrhus americanus* (Linnæus). *Carolina whiting*; *Sand whiting*;
Kingfish; *Sea smelt*; *Sea mullet*.**

South Atlantic and Gulf coasts of United States; Chesapeake Bay to Texas.

Cyprinus americanus Linnæus, Syst. Nat., Ed. X, 1758, 321, Carolinas; (based on *Alburnus americanus* the whiting of Catesby, nonbinomial; not *Cyprinus americanus* of 12th edition of Systema Naturæ, which is a cyprinoid, *Abramis bosci* Cuvier and Valenciennes).

Perca alburnus Linnæus, Syst. Nat., Ed. XII, 1766, 482. Charleston, S. C.

Umbрина phalæna Girard, Proc. Acad. Nat. Sci. Phila., X, 1858, 167, Indianola and Brazos Santiago, Tex.

**2720. *Menticirrhus saxatilis* (Bloch and Schneider). *Kingfish*; *Sea mink*;
Northern whiting; *Hake*; *Barb*.**

Atlantic and Gulf coasts of the United States; Cape Ann to Key West and Pensacola; most common northward.

Johnius saxatilis Schneider, Ed. Bloch, Syst. Ichth., 1801, 75, New York.

2721. *Menticirrhus undulatus* (Girard). *California whiting*; *Sand sucker*.

Southern California, north to Santa Barbara.

Umbрина undulata Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 148, San Diego, Calif.

- 2722. *Menticirrhus martinicensis*** (Cuvier and Valenciennes). *Jewsharp drummer*.
West Indies; Martinique; Jamaica to Patagonia; common in Brazil.
Umbrina martinicensis Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830, 186, Martinique.
Umbrina gracilis Cuvier and Valenciennes, loc. cit., 1830, 186, Brazil.
Umbrina arenata Cuvier and Valenciennes, loc. cit., 141 (190), Brazil.
Umbrina januaria Steindachner, Ichth. Beitr., V, 1876, 122, Rio Janeiro.
- 2723. *Menticirrhus nasus*** (Gunther).
Panama.
Umbrina nasus Gunther, Trans. Zool. Soc. Lond., VI, 1868 (Nov. 27), 387, 426, Panama.
Menticirrhus simus Jordan and Eigenmann, Review Sciænidæ, Rept. U. S. Fish Com., XIV, 1886, 427, Mazatlan and Panama.
- 2724. *Menticirrhus panamensis*** (Steindachner).
Pacific coast of tropical America; Mazatlan to Panama
Umbrina panamensis Steindachner, Ichth. Beitr., IV, 1875, 9, Panama.
- Genus 936. UMBRULA** Jordan and Eigenmann.
Umbrula Jordan and Eigenmann, Review Sciænidæ, Rept. U. S. Fish Com., XIV, 1886, 424 (*Umbrina littoralis* Holbrook).
- 2725. *Umbrula littoralis*** (Holbrook). *Surf whiting; Silver whiting; Shore whiting*.
South Atlantic and Gulf coasts of United States, North Carolina to Texas.
Umbrina littoralis Holbrook, Ichth. South Carolina, Ed. I, 1855, 142, pl. 20, fig. 1, South Carolina.
- 2726. *Umbrula elongata*** (Günther). *Verrugata*.
Pacific coast of tropical America, Mazatlan to Panama.
Umbrina elongata Gunther, Proc. Zool. Soc. Lond., 1864, 148, Chiapam.
- Genus 937. PARALONCHURUS** Bocourt.
Paralanchurus Bocourt, Nouv. Arch. Mus. d'Hist. Nat., IV, 1869, 21 (*P. petersi* Bocourt).
- 2727. *Paralanchurus petersi*** Bocourt.
Coast of Central America; rare at Panama.
Paralanchurus petersi Bocourt, Nouv. Archiv. du Muséum, IV, 1869, 22, La Union, San Salvador.
- Genus 938. POLYCLEMUS** Berg. *Corvalos*.
Polycirrhus Bocourt, Nouv. Arch. Mus. Paris, IV, 1869, 22 (*P. dumerili* Bocourt); name preoccupied in worms.
Polyclemus Berg, Ann. Mus. Nac. Buenos Aires, IV, 1895, 52 (*Polycirrhus dumerili* Bocourt).
- 2728. *Polyclemus dumerili*** (Bocourt).
Panama.
Polycirrhus dumerili Bocourt, Nouv. Arch. Mus. d'Hist. Nat., IV, 1869, 23, La Union, San Salvador.
Genyonemus fasciatus Steindachner, Ichth. Beitr., II, 1875, 31, Panama.
- Genus 939. ZONOSCION** Jordan and Evermann.
Zonoscion Jordan and Evermann, Check List, 1895, 401 (*Polycirrhus rathbuni* Jordan and Bollman).
- 2729. *Zonoscion rathbuni*** (Jordan and Bollman).
Panama.
Polycirrhus rathbuni Jordan and Bollman, Proc. U. S. Nat. Mus., XII, 1889, 162, Panama.
- Genus 940. ZACLEMUS** Gilbert.
Zaclemus Gilbert, in Jordan and Evermann, Check List, 1895, 401 (*Paralanchurus goodii* Gilbert).
- 2730. *Zaclemus goodii*** (Gilbert).
Panama.
Paralanchurus goodii Gilbert, in Jordan and Evermann, Check List, 1895, 401, and Fishes North and Mid. Amer., 1896, 1480, Panama.

Genus 941. LONCHIURUS Bloch.

Lonchurus Bloch, Naturgesch. Ausl. Fische, VII, 1793, 144 (*Lonchiurus barbat* Bloch=*Perca lanceolata* Bloch).

Lonchurus authors, preferred spelling.

2731. *Lonchiurus lanceolatus* (Bloch).

West Indies to Guiana.

Perca lanceolata Bloch, Nov. Act. Sc., Copenh., III, 1788, 383, India.

Lonchurus depressus Bloch, Naturgesch. Ausl. Fische, VII, 1793, 144, Surinam.

Genus 942. POGONIAS Lacépède. Sea drums.

Pogonias Lacépède, Hist. Nat. Poiss., III, 1802, 138 (*P. fasciatus* Lacépède=*Labrus cromis* Linnæus).

Pogonathus Lacépède, loc. cit., V, 1803, 121 (*P. courbina* Lacépède).

Pogonathus Bonaparte, Ittiologia Generale, 1831 (*Pogonias fasciatus* Lacépède).

2732. *Pogonias cromis* (Linnæus). Gray drum; Drum; Black drum; Drumfish; Banded drum; Big drum.

Atlantic coast of America; Long Island to mouth of Rio Grande.

Labrus cromis Linnæus, Syst. Nat., Ed. XII, 1766, 479, Carolinas.

Pogonias fasciatus Lacépède, Hist. Nat. Poiss., III, 1802, 137.

Mugil grunniens Mitchill, Rept. in part, Fishes New York, 1814, 15, New York.

Sciaen fuscus Mitchill, Trans. Lit. Phil. Soc. N. Y., 1815, 409, New York.

Sciaen gigas Mitchill, loc. cit., 412, New York.

2733. *Pogonias courbina* (Lacépède).

Guiana to Uruguay; rather common on coast of Brazil.

Pogonathus courbina Lacépède, Hist. Nat. Poiss., V, 1803, 121, Rio de la Plata.

Genus 943. APLODINOTUS Rafinesque. River drums; Thunderpumpers.

Aplodinotus Rafinesque, Jour. de Phys., LXXXVIII, 1819, 418 (*A. grunniens* Rafinesque).

Ambodon Rafinesque, Jour. de Phys., 1819, 421, based on teeth supposed to belong to *Ictiobus*, later restricted by Rafinesque to *Ambodon grunniens*.

Eutychelithus Jordan, Man. Vert., Ed. I, 1876, 242 (*Corvina richardsoni* Cuvier and Valenciennes, an injured or deformed example of *A. grunniens*).

Haplodonotus Gill, revised spelling.

2734. *Aplodinotus grunniens* Rafinesque. Fresh-water drum; Gaspergou; Thunderpumper; Lake sheepshead; Croaker; Bubbler; White perch.

Great Lakes to Texas; abundant in lakes and large streams between the Alleghenies and the Great Plains.

Aplodinotus grunniens Rafinesque, Jour. de Phys., 1819, 88, Ohio River.

Sciaen oscula LeSueur, Jour. Acad. Nat. Sci. Phila., 1822, 252, pl. 13, Lake Ontario.

Sciaen grisea LeSueur, loc. cit., 254, Ohio River at Pittsburgh, Pa.

Corvina richardsoni Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830, 100, Lake Huron, based on an abnormal specimen.

Ambodon concinnus Agassiz, Amer. Jour. Sci. Arts, XVII, 1854, 307, Tennessee River.

Ambodon lineatus Agassiz, loc. cit., 307, Osage River, Mo.

2735. *Aplodinotus neglectus* (Girard).

Streams of eastern Mexico from Rio Grande to Rio Usumacinta.

Ambodon neglectus Girard, Proc. Acad. Nat. Sci. Phila., X, 1858, 167, mouth of the Rio Grande; Rio Usumacinta. This Mexican form apparently distinguished by larger scales (43 instead of 55 to 60).

Genus 944. EQUETUS Rafinesque.

Eques Bloch, Nat. Ausl. Fische, VII, 1793, 91 (*E. americanus* Bloch=*Chaetodon lanceolatus* Linnæus); preoccupied.

Equetus Rafinesque, Anal. Nat., 1815, 89; substitute for *Eques* Bloch.

2736. *Equetus lanceolatus* (Linnæus). *Ribbonfish; Guapena; Serrana*.
West Indies, ranging northward to Pensacola.
Ribbon fish, Edwards, Gleanings, pl. 210, 1758, Guadeloupe; Carolina.
Chætodon lanceolatus Linnæus, Syst. Nat., Ed. X, 1758, 277, "Caribbean Islands"; based on Edwards, pl. 210.
? *Serrana* Parra, Piezas, d'Hist. de Cuba, 1787, pl. 2, Cuba.
Eques americanus Bloch, Nat. Ausl. Fische, VII, 1793, West Indies.
Eques balleatus Cuvier, Règne Anim., ed. 2, II, 1829, 175, pl. 29, fig. 2, Martinique, after Edwards.
Sciæna edwardsi Gronow, Cat. Fish., ed. Gray, 1854, 53, after Edwards.
- Genus 945. **PAREQUES** Gill.
Pareques Gill in Goode, Bull. U. S. Nat. Mus., V, 1875, 50 (*Grammistes acuminatus* Bloch and Schneider).
2737. *Pareques viola* (Gilbert).
Panama
Eques viola Gilbert in Jordan and Evermann, Check List, 1895, 402, Panama.
2738. *Pareques acuminatus* (Bloch and Schneider).
West Indies; South Carolina to Brazil.
Grammistes acuminatus Bloch and Schneider, ed. Bloch, Syst. Ichth., 1801, 184, no locality; after Seba.
Eques lineatus Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830, 126 (169), Brazil.
2739. *Pareques umbrosus* (Jordan and Eigenmann).
Southeast coast of the United States, Charleston to Pensacola.
Eques acuminatus umbrosus Jordan and Eigenmann, Review Sciænidæ, Rept. U. S. Fish Com., XIV, 1886, 440, Charleston and Pensacola.
2740. *Pareques punctatus* (Bloch and Schneider). *Serrana hispana*.
West Indies.
Serrana hispana Parra, Piezas, Hist. Nat. Cuba, 1787, 2, pl. 2, lower figure, Cuba.
Eques punctatus Bloch and Schneider, Syst. Ichth., 1801, 106, Cuba; based on Parra, 2, pl. 2, fig. 2.
2741. *Pareques pulcher* (Steindachner).
Tortugas Archipelago; Barbados.
Eques pulcher Steindachner, Ichth. Notizen, VI, 1867, 43, Barbados.

Family 214. OTOLITHIDÆ. Weakfishes; Queenfishes

- Genus 946. **SERIPHUS** Ayres.
Seriphus Ayres, Proc. Calif. Acad. Nat. Sci., II, 1858-1862 (1863; read Nov. 5, 1860), 80 (*S. politus* Ayres).
2742. *Seriphus politus* Ayres. *Queenfish; White croaker*.
Coast of southern California from Point Conception to Cedros Island; common on sandy shores.
Seriphus politus Ayres, Proc. Calif. Acad. Nat. Sci., II, 1858-1862 (1863; read Nov. 5, 1860), 80, fig. 21, about San Diego.
- Genus 947. **ISOPISTHUS** Gill.
Isopisthus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 18 (*Ancylodon parvipinnis* Cuvier and Valenciennes).
2743. *Isopisthus parvipinnis* (Cuvier and Valenciennes).
Coast of Brazil, north to Cayenne and Guiana.
Ancylodon parvipinnis Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830, 62 (84), pl. 105, Cayenne
Isopisthus affinis Steindachner, Denksch. Mat. Nat. Kais. Acad. Wiss., XLI, Bd. I., Abth., 1879, 43, pl. 2, fig. 2, Porto Alegre, Brazil.
2744. *Isopisthus remifer* Jordan and Gilbert.
Panama, on sandy shores, rather common.
Isopisthus remifer Jordan and Gilbert, Bull. U. S. Fish Com., I, 1881, 320, Panama.

- 2745. *Isopisthus harroweri* Fowler.**
Atlantic shore of Central America.
Isopisthus harroweri Fowler, Proc. Acad. Nat. Sci. Phila., LXVIII, 1916, 402, Colon
- Genus 948. NEBRIS Cuvier and Valenciennes.**
Nebris Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830, 111 (149)
(*N. microps* Cuvier and Valenciennes)
- 2746. *Nebris microps* Cuvier and Valenciennes.**
Atlantic coast of northern South America; sandy shores.
Nebris microps Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830, 111 (149), pl. 112, Surinam
- 2747. *Nebris occidentalis* Vaillant. *Guavina*.**
Pacific coast of tropical America
Nebris occidentalis Vaillant, Bull. Mus. Paris, 1897, 124, Pacific coast of Central America.
Nebris zestus Jordan and Starks, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 1417, Panama.
- Genus 949. MACRODON Schintz.**
Ancylodon Cuvier, in Oken, Isis, 1817, 1182 (*Lonchurus ancylodon* Schneider); name preoccupied in mammals.
Macrodon Schintz, Das Thierreich, II, 1822, 482 (*Lonchurus ancylodon* Schneider).
Nomalus Gistel, Thierreich, X, 1848, substitute for *Ancylodon*.
Sagenichthys Carlos Berg, Ann. Mus. Nat. Buenos Aires, 1895, 42 (*Lonchurus ancylodon* Schneider); substitute for *Ancylodon*.
- 2748. *Macrodon ancylodon* (Bloch and Schneider). *Pescadillo del rey*.**
West Indies, Guiana; Brazil; and Uruguay; rather scarce.
Lonchurus ancylodon Bloch and Schneider, ed. Bloch, Syst. Ichth., 1801, 102, pl. 25, Surinam
Ancyloden jaculidens Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830, 60 (81), Cayenne.
- 2749. *Macrodon mordax* (Gilbert and Starks).**
Panama.
Sagenichthys mordax Gilbert and Starks, Mem. Calif. Acad. Sci., IV, 1904, 121, Pl. XVI, Panama.
- Genus 950. BUCCONE Jordan and Evermann.**
Buccone Jordan and Evermann, Check List, 1895, 394 (*Cestreus prædatorius* Jordan and Gilbert).
- 2750. *Buccone prædatoria* (Jordan and Gilbert). *Bocone*.**
Coast of Panama; scarce.
Cestreus prædatorius Jordan and Gilbert, Rept. U. S. Fish Com., XIV, 1886, 363, Panama.
- Genus 951. CYNOSCIION Gill.**
Cestreus Gronow, Cat. Fish., ed. Gray, 1854, 49 (*Cestreus carolinensis* Gronow=*Otolithus nebulosus* Cuvier and Valenciennes); preoccupied in gobies.
Cynoscion Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 81 (*Johnius regalis* Bloch and Schneider).
Apeudobranchus Gill, loc. cit., XIV, 1862, 18 (*Otolithus tæ-ræ* Cuvier and Valenciennes=*Cheilodipterus acoupa* Lacépède).
- Subgenus CYNOSCIION Gill.**
- 2751. *Cynoscion acoupa* (Lacépède). *Acoupa*; *Toeroe*.**
Atlantic coast of South America, Brazil north to Venezuela; generally common.
Cheilodipterus acoupa Lacépède, Hist. Nat. Poiss., III, 1802, 546, Cayenne.
Lutjanus cayanensis Lacépède, loc. cit., IV, 1802, 196, Cayenne.
Otolithus rhomboidalis Cuvier, Règne Anim., ed. 2, II, 1829, 173, Cayenne.
Otolithus toe-roë Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830, 54 (72), pl. 103, Cayenne.

2752. *Cynoscion squamipinnis* (Gunther).
Pacific coast of tropical America; known from a few specimens taken at La Union and Panama
Otolithus squamipinnis Gunther, Trans. Zool. Soc. Lond., VI, 1868 (Nov. 27), 387, 429, Panama.
2753. *Cynoscion othonopterus* Jordan and Gilbert.
Gulf of California
Cynoscion othonopterus Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 274, Punta San Felipe, Mexico.
2754. *Cynoscion obliquatus* (Cuvier and Valenciennes).
Martinique
Otolithus obliquatus Cuvier and Valenciennes, in Sauvage, Bull. Soc. Philom. Paris, III, 1879, 209, Martinique.
2755. *Cynoscion jamaicensis* (Vaillant and Bocourt). *Mongolar drummer*.
Jamaica and Porto Rico.
Otolithus jamaicensis Vaillant and Bocourt, Miss. Sci. au Mexique, Poissons, 1874, 156, Jamaica.
2756. *Cynoscion regalis* (Bloch and Schneider). *Common weakfish; Squeteague; Sea trout; Squit; Shecutts; Chuckwick; Salt-water trout; Gray trout*.
Atlantic and Gulf coasts of United States, Cape Cod southward to Mobile
Johnius regalis Bloch and Schneider, Syst. Ichth., 1801, 75, New York.
Roccus comes Mitchill, Report, in part, Fishes New York, 1814, 25, New York.
Labrus squeteague Mitchill, Trans. Lit. Phil. Soc. New York, 1815, 396, pl. 2, fig. 1, New York.
2757. *Cynoscion nothus* (Holbrook). *Bastard weakfish*.
South Atlantic and Gulf coasts of United States; rather rare at Charleston. This unspotted fish is now generally regarded as a pale variant of *Cynoscion regalis*.
Otolithus nothus Holbrook, Ichth. South Carolina, 1855, 134, pl. 19, fig. 1, South Carolina.
2758. *Cynoscion thalassinus* (Holbrook).
Pensacola; Pass Christian, Miss.; Hampton Roads, Va.
Otolithus thalassinus Holbrook, Ichth. South Carolina, 1855, 132, pl. 18, fig. 2, Charleston, S. C.
2759. *Cynoscion leiarchus* (Cuvier and Valenciennes).
Coasts of Brazil and Guiana
Otolithus leiarchus Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830, 58 (78), Brazil; Cayenne.
2760. *Cynoscion microlepidotus* (Cuvier and Valenciennes).
Coast of Brazil and Guiana.
Otolithus microlepidotus Cuvier and Valenciennes, Hist. Nat. Poiss.; V, 1830, 59 (79), Surinam.
- Genus 952. *ERISCION* Jordan and Evermann.
Eriscion Jordan and Evermann, Proc. Calif. Acad. Sci., 4th ser., XVI, Apr. 27, 1927, 506 (*Otolithus nebulosus* Cuvier and Valenciennes).
2761. *Eriscion reticulatus* (Günther). *Corvina*.
Pacific coast of tropical America, Mazatlan to Panama.
Otolithus reticulatus Günther, Proc. Zool. Soc. Lond., 1864, 149, San Jose de Guatemala; Chiapam
2762. *Eriscion nebulosus* (Cuvier and Valenciennes). *Spotted weakfish; Spotted sea trout; Spotted Squeteague*.
South Atlantic and Gulf coasts of the United States; New York to Texas; everywhere common on our southern coast; rare north of Virginia.
Labrus squeteague maculatus Mitchill, Trans. Lit. Phil. Soc., 1815, 396, New York; not *Labrus maculatus* Bloch.
Otolithus nebulosus Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830, 59 (79), locality unknown.
Otolithus carolinensis Cuvier and Valenciennes, Hist. Nat. Poiss., IX, 1833, 351, (475), South Carolina.
Otolithus drummondi Richardson, Fauna Bor.-Amer., Fish., 1836, 70, New Orleans.

2763. *Eriscion parvipinnis* (Ayres). *California bluefish*.
Coast of Lower California; Santa Barbara Islands to Guaymas;
common along the coasts of southern California as far north as
San Pedro.
Cynoscion parvipinnis Ayres, Proc. Calif. Acad. Nat. Sci., II, 1858-1862
(read Dec 1, 1861, published Sept., 1862), 156, fig. 48, coast of
Lower California
Otolithus magdalenæ Steindachner, Ichth. Beit., III, 1875, 34, Mag-
dalena Bay, Lower California.
2764. *Eriscion xanthulus* (Jordan and Gilbert). *Corvina de las aletas amaril-
las; Yellowmouth*.
Pacific coast of Mexico; not rare about Mazatlan.
Cynoscion xanthulum Jordan and Gilbert, Proc. U. S. Nat. Mus., IV,
1881, 460, Mazatlan.
2765. *Eriscion albus* (Günther).
Pacific coast of tropical America.
Otolithus albus Günther, Proc. Zool. Soc. Lond., 1864, 149, Chiapam;
Panama.
Otolithus cayennensis Vaillant and Bocourt, Miss. Sci. Mexique, Poiss.,
1874, 156, La Union, Salvador.
2766. *Eriscion stolzmanni* (Steindachner).
Pacific coast of tropical America, from Panama to Peru.
Otolithus stolzmanni Steindachner, Denkschr. Mat. Nat. Kais. Acad.
Wiss., XLI, Bd. I, Abth. 35, 1879, pl. 2, fig. 1, Tumbes, Peru.
2767. *Eriscion virescens* (Cuvier and Valenciennes).
Coasts of Guiana and Brazil.
Otolithus virescens Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830,
54 (72), Surinam.
Otolithus microps Steindachner, Denkschr. Mat. Nat. Kais. Acad.
Wiss., XLI, Bd. I, Abth. 38, 1879, pl. 8, fig. 2, Porto Alegre, Brazil.
2768. *Eriscion macdonaldi* (Gilbert). *Totuava*.
Gulf of California.
Cynoscion macdonaldi Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 64,
head of Gulf of California.
- Genus 953. **ATRACTOSCION** Gill.
Atractoscion Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 18 (*Otolithus
æquidens* Cuvier and Valenciennes).
2769. *Atractoscion nobilis* (Ayres). *White sea bass of California*.
Coast of California, north to San Francisco, occasionally straying as
far north as Boca de Quadra Inlet, Alaska.
Johnius nobilis Ayres, Proc. Calif. Acad. Nat. Sci., II, 1860, 77, San
Francisco.
Otolithus californiensis Steindachner, Ichth. Beitr., III, 1875, 31, San
Diego, Calif., and Magdalena Bay, Lower California.
2770. *Atractoscion phoxocephalus* (Jordan and Gilbert).
Pacific coast of tropical America; Panama.
Cynoscion phoxocephalum Jordan and Gilbert, Bull. U. S. Fish Com.,
I, 1881, 318, Panama.

Family 215. MALACANTHIDÆ. Matajuelos

Genus 954. MALACANTHUS Cuvier.

Malacanthus Cuvier, Règne Animal, ed. 2, II, 1829, 264 (*Coryphæna
plumieri* Bloch).

2771. *Malacanthus plumieri* (Bloch). *Matajuelo blanco*.
West Indies, generally common.
Coryphæna plumieri Bloch, Ichth., V, 1787, 119, pl. 175, Martinique;
from a drawing by Plumier.

Family 216. BRANCHIOSTEGIDÆ.⁶⁵ Blanquillos

Genus 955. CAULOLATILUS Gill.

Caulolatilus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 240 (?*Latilus chrysops* Cuvier and Valenciennes).

Dekaya Cooper, Proc. Calif. Acad. Nat. Sci., III, pt. 1, 1863 (Nov.), 70, fig. 17 (*D. anomala* Cooper).

2772. *Caulolatilus chrysops* (Cuvier and Valenciennes). *Blanquillo*.

Gulf of Mexico and southward.

Latilus chrysops Cuvier and Valenciennes, Hist. Nat. Poiss., IX, 1833, 496, Brazil.

2773. *Caulolatilus microps* Goode and Bean.

Gulf of Mexico.

Caulolatilus microps Goode and Bean, Proc. U. S. Nat. Mus., I, 1878, 43, off Pensacola, Fla.

2774. *Caulolatilus princeps* (Jenyns). *Blanquillo*.

Cape San Lucas to the Galapagos.

Latilus princeps Jenyns, Zool. Voy. *Beagle*, Fishes, 1842, 52, Chatham Island, Galapagos Archipelago.

Caulolatilus affinis Gill, Proc. Acad. Nat. Sci. Phila., XVII, 1865, 68, Cape San Lucas

2775. *Caulolatilus anomalus* (Cooper). *Blanquillo*; *Sea whitefish*.

Coast of southern California, about rocky islands from Point Conception southward; common.

Dekaya anomala Cooper, Proc. Calif. Acad. Nat. Sci., III, pt. 1, 1863 (Nov.), 70, fig. 17, Santa Catalina Island off southern California.

2776. *Caulolatilus cyanops* Poey. *Blanquillo*.

Coasts of Cuba and Porto Rico.

Caulolatilus cyanops Poey, Repertorio, I, 1866, 311-312, Cuba.

Genus 956. LOPHOLATILUS Goode and Bean. *Tilefish*.

Lopholatilus Goode and Bean, Proc. U. S. Nat. Mus., II, 1879, 205 (*L. chamæleonticeps* Goode and Bean).

2777-2778. *Lopholatilus chamæleonticeps* Goode and Bean. *Tilefish*.

Deep waters of the western Atlantic; abundant at intervals but subject to calamities; a valued food fish.

Lopholatilus chamæleonticeps Goode and Bean, Proc. U. S. Nat. Mus., II, 1879, 205; 80 miles S. by E. of No-man's Land, 40° N., 70° W., in 84 fathoms.

Family 217. TRICHODONTIDÆ

Genus 957. TRICHODON Steller.

Trichodon Steller, in Tilesius, Mém. Acad. St. Petersb., IV, 1811, 468 (*Trachinus trichodon* Tilesius).

2779. *Trichodon trichodon* (Tilesius). *Sandfish*.

Coasts of Kamchatka and eastward; Herendeen Bay and elsewhere in Bering Sea, and south to coast of Oregon.

Trachinus trichodon Tilesius, Mém. Acad. St. Petersb., IV, 1811, fig. 8, 73, Kamchatka.

Trachinus gasteropelecus Tilesius, loc. cit., 1811, 466, Kamchatka.

Trichodon lineatus Ayres, Proc. Calif. Acad. Nat. Sci., II, 1860, 60, San Francisco.

Genus 958. ARCTOSCOPUS Jordan and Evermann.

Arctoscopus Jordan and Evermann, Check List, 1895, 464 (*Trichodon japonicus* Steindachner).

2780. *Arctoscopus japonicus* (Steindachner).

Sea of Japan, eastward to Sitka, Alaska.

Trichodon japonicus Steindachner, Ichth. Beitr., X, 1881, 4 Strietok and Sitka.

⁶⁵ The name *branchistegus* Rafinesque (1815) has priority over *Latilus* Cuvier and Valenciennes (1830).

Family 218. CIRRHITIDÆ

Genus 959. CIRRHITUS Lacépède.

Cirrhatus Lacépède, Hist. Nat. Poiss., V, 1803, 3 (*C. maculatus* Lacépède).
Cirrhutichthys Gunther, Cat., II, 1860, 73; not of Bleeker.
Cirrhites of authors, revised spelling.

2781. *Cirrhitus rivulatus* (Valenciennes).

Cape San Lucas to the Revillagigedos and Galapagos Islands.
Cirrhites rivulatus Valenciennes, Voy. *Vénus*, Poiss., 1855, 309, pl. 3,
 fig. 1, Galapagos Islands
Cirrhitus betaurus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 259,
 Cape San Lucas; young.

Family 219. ANTIGONIIDÆ

Genus 960. ANTIGONIA Lowe.

Antigonia Lowe, Proc. Zool. Soc. Lond., 1843, 85 (*A. capros* Lowe).
Caprophonus Muller and Troschel, Horæ Ichth., III, 1845, 28, pl. 5,
 fig. 1 (*C. aurora* Muller and Troschel).
Hypsinothus Temminck and Schlegel, Faun. Japon., Poiss., 1844, 84
 (*H. rubescens* Gunther).

2782. *Antigonia capros* Lowe.

Tropical Atlantic, in rather deep water.
Antigonia capros Lowe, Proc. Zool. Soc. Lond., 1843, 85, Madeira.
Caprophonus aurora Muller and Troschel, Horæ Ichthyologicæ, III,
 1845, p. 28, pl. 5, fig. 1, Barbados.

Family 220. SCORPIDÆ. Halfmoon fishes

Genus 961. MEDIALUNA Jordan and Fesler.

Medialuna Jordan and Fesler, Rept. U. S. Fish Com., XVII, 1889-1891,
 536 (*Scorpius californiensis* Steindachner).

2783. *Medialuna californiensis* (Steindachner). *Medialuna*; *Halfmoon*.

Coast of southern California from Point Conception southward to
 Cedros Island
Scorpius californiensis Steindachner, Ichth. Beitr., III, 1875, 19, San
 Diego.

Suborder SQUAMIPENNES

Family 221. EPHIPPIDÆ

Genus 962. CHÆTODIPTERUS Lacépède.

Chætodipterus Lacépède, Hist. Nat. Poiss., IV, 1803, 503 (*Chætodon*
plumieri Bloch = *Chætodon faber* Broussonet).
Parephippus Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 165 (*Ephip-*
pus zonatus Girard).

2784. *Chætodipterus faber* (Broussonet). *Angelfish*; *Spadefish*; *Moonfish*;
Tripletail; *Three-banded sheephead*; *Three-tailed porgy*.

West Indies, Cape Cod to Rio Janeiro, south Atlantic coast
Faber marinus fere quadratus (the pilotfish) Sloane, Jamaica, II, 1793,
 290, pl. 251, Jamaica.
Chætodon faber Broussonet, Ichth., V, Dec. 1, 1782, pl. 4, Jamaica.
Zeus quadratus Gmelin, Syst. Nat., I, 1788, 1225, Jamaica; after
 Sloane.
Chætodon plumieri Bloch, Naturgesch. Ausl. Fische, III, 1787, 104,
 Martinique.
Selene quadrangularis Lacépède, Hist. Nat. Poiss., IV, 1803, 564,
 Jamaica; after Sloane.
Chætodon oviformis Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 247,
 pl. 5, fig. 4, New York.
Ephippus gigas Cuvier, Règne Anim., ed. 2, II, 1829, 191, America.

2785. *Chætodipterus zonatus* (Girard).

Pacific coast of America, from San Diego to Panama; common south-
 ward.
Ephippus zonatus Girard, Pac. R. R. Surv., X, pt. 4, Fishes, 1858, 110,
 San Diego, Calif.

- Genus 963. PARAPSETTUS** Steindachner.
Parapsettus Steindachner, Ichth. Beitr., III, 1875, 50 (*P. panamensis* Steindachner).
- 2786. Parapsettus panamensis** Steindachner.
 Panama.
Parapsettus panamensis Steindachner, Ichth. Beitr., III, 1875, 51, Panama.
- Family 222. CHÆTODONTIDÆ.** Butterflyfishes; Coralfishes
- Genus 964. PROGNOTHODES** Gill.
Prognathodes Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 238 (*Chelmo pelta* Günther = *Chelmon aculeatus* Poey).
- 2787. Prognathodes aculeatus** (Poey).
 West Indies.
Chelmon aculeatus Poey, Memorias, II, 1861, 202, Cuba.
Chelmo pelta Günther, Cat., II, 1860, 38, locality unknown.
- Genus 965. FORCIPIGER** Jordan and McGregor.
Forcipiger Jordan and McGregor, Rept. U. S. Fish Com., XXIV, 1898, 279 (*Chætodon longirostris* Broussonet).
- 2788. Forcipiger longirostris** (Broussonet).
 South Seas east to Revillagigedo Islands.
Chætodon longirostris Broussonet, Desc. Ichth., I, 1782, 23, pl. 7, Society and Sandwich Islands.
Forcipiger flavissimus Jordan and McGregor, Rept. U. S. Fish Com., XXIV, 1898, 279, Clarion Island, Revillagigedo Archipelago.
- Genus 966. CHÆTODON** ⁶⁶ Linnæus. *Butterflyfishes.*
Chætodon Linnæus, Syst. Nat., Ed. X, 1758, 272 (*C. capistratus* Linnæus).
Rabdophorus Swainson, Classn. Fishes, II, 1839, 21 (*Chætodon ephippium* Cuvier and Valenciennes).
Citrædus Kaup, Wiegmann's Archiv, XXVI, 1860, 136 (*Chætodon ornatus* Solander).
Linophora Kaup, loc. cit., 137 (*Chætodon auriga* Forskål).
Sarothrodus Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 99 (*Chætodon capistratus* Gill).
Tholichthys Günther, Ann. Mag. Nat. Hist., I, 4th ser., 1868, 457 (*T. osseus* Günther; a larval form).
Chætodontops Bleeker, Arch. Neerl. Soc. Nat., XI, 1876, 304 (*Chætodon collaris* Bloch).
Tetragonopterus Klein, in Bleeker, loc. cit., 305 (*Chætodon striatus* L.); not *Tetragonopterus* of Cuvier.
Lepidochætodon Bleeker, loc. cit., 305 (*Chætodon unimaculatus* Bloch).
Gonochætodon Bleeker, loc. cit., 306 (*Chætodon triangulum* Kuhl and Van Hasselt).
Orychætodon Bleeker, loc. cit., 306 (*Chætodon lineolatus* Quoy and Gaimard).
Hemichætodon Bleeker, Versl. Ak. Amsterdam, XII, 1876, 38 (*Chætodon capistratus* Linnæus).
Anisochætodon Klunzinger, Fische Rothen Meeres, I, 1884, 3 (*Chætodon auriga* Cuvier and Valenciennes).
- Subgenus CHÆTODON** Linnæus.
- 2789. Chætodon capistratus** Linnæus. *Parché.*
 West Indies, Habana, north to Woods Hole.
Chætodon capistratus Linnæus, Syst. Nat., Ed. X, 1758, 275, India.
Chætodon briceii Smith, Bull. U. S. Fish Com., XVII, 1897, 102, with text fig., Woods Hole, Mass.; young.
- 2790. Chætodon striatus** Linnæus. *Portuguese butterfly.*
 West Indies.
Chætodon striatus Linnæus, Syst. Nat., Ed. X, 1758, 275, India.

⁶⁶ These nominal genera, here included under *Chætodon*, are mostly imperfectly defined. The following may be valid: *Chætodon*, lines of scales running upward and backward from the lateral line, no produced rays, *Linophora*, similar but one dorsal ray much produced, *Orychætodon*, scales of sides enlarged, snout sharp; *Chætodontops*, similar, but snout blunt, etc. *Lepidochætodon*, scales of sides much enlarged, in horizontal rows, etc. *Rabdophorus*, scales horizontal, much reduced above lateral line (see Jordan and Jordan, Mem. Carnegie Mus. X, 55, 1922).

Subgenus CHÆTODONTOPS Bleeker.

2791. *Chætodon bimaculatus* Bloch⁶⁷ *Parché; Isabelita de la alto.*
West Indies, north in Gulf Stream to New Jersey and Rhode Island.
Chætodon ocellatus Bloch, Naturgesch. Ausl. Fische, III, pl. 211, 1787,
105, "also from the East Indies"
Chætodon bimaculatus Bloch, loc. cit., 1790, pl. 219, fig. 1
Sarothrodus maculo-cinctus Gill, Proc. Acad. Nat. Sci. Phila., XIII,
1861, 99, Newport, R. I.
Sarothrodus amplexicollis Poey, Enumeratio, 1875, 63, Cuba
2792. *Chætodon nigrirostris* (Gill)
Cape San Lucas, Lower California; Panama Bay.
Sarothrodus nigrirostris Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862,
243, Cape San Lucas, Lower California.
2793. *Chætodon humeralis* Gunther. *Muñeca; Dollfish.*
Pacific coast of America, from Guaymas to Panama
Chætodon humeralis Gunther, Cat., II, 1860, 19, "Sandwich Islands,"
by error for Central America.
2794. *Chætodon sedentarius* Poey.
West Indian fauna.
Chætodon sedentarius Poey, Memorias, II, 1860, 203, Cuba.
2795. *Chætodon gracilis* Gunther.
West Indies.
Chætodon gracilis Gunther, Cat., II, 1860, 20, Caribbean Sea, West
Indies.
2796. *Chætodon aya* Jordan.
Gulf of Mexico.
Chætodon aya Jordan, Proc. U. S. Nat. Mus., IX, 1886, 225, Snapper
Banks, south of Pensacola, Fla.
2797. *Chætodon atæniatus* (Poey).
Habana Cuba.
Sarothrodus atæniatus Poey, Synopsis, 1868, 353, Cuba.
? *Chætodon unicolor* Sauvage, Bull. Soc. Philom., IV, 1880, 222, Mar-
tinique.
- Genus 967. POMACANTHUS Lacépède. *Chirivitas.*
Pomacanthus Lacépède, Hist. Nat. Poiss., IV, 1803, 517 (*Chætodon*
arcuatus Linnæus, as restricted by Cuvier).
2798. *Pomacanthus arcuatus* (Linnæus). *Black angel; Chirivita; Portugais.*
West Indies, north to New Jersey, south to Bahia.
Chætodon arcuatus Linnæus, Syst. Nat., Ed. X, 1758, 273, "India."
Chætodon aureus Bloch, Naturgesch. Ausl. Fische, III, 1787, 49, Mar-
tinique; on drawing by Plumier.
Chætodon lutescens Bonnaterre, Encycl. Meth., 1788, 82, Jamaica; after
Browne.
Chætodon littoralis Poey, Synopsis, 1868, 351, Cuba.
Pomacanthus balleatus Cuvier and Valenciennes, Hist. Nat. Poiss., VII,
1831, 156 (208), Porto Rico.
Pomacanthus cingulatus Cuvier and Valenciennes, loc. cit., 156 (209),
pl. 185, West Indies (probably Porto Rico).
Pomacanthus quinquecinctus Cuvier and Valenciennes, loc. cit., 157
(210), West Indies (probably Porto Rico).
2799. *Pomacanthus paru* (Bloch). *Paru; Indianfish; Flatfish; Chirivita.*
West Indies, south to Bahia; Tortugas.
Chætodon paru Bloch, Naturgesch. Ausl. Fische, III, 1787, 57, Brazil;
on a drawing.
- Genus 968. POMACANTHODES Gill.
Pomacanthodes Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 244 (*P.*
zonipictus Gill).

⁶⁷ Poey seems to have been the first to recognize the identity of *ocellatus* (which has page priority) with *bimaculatus*. He chose to use the name *bimaculatus*, which should therefore stand.

- 2800. Pomacanthodes zonipectus** Gill. *Mojarra de las piedras*.
West coast of tropical America, from Mazatlan to Panama.
Pomacanthodes zonipectus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 244, San Salvador.
Pomacanthus crescentalis Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 358, Mazatlan.
- Genus 969. CENTROPYGE** Kaup.
Centropyge Kaup, Wiegmann's Archiv, XXVI, 1860, 140 (*Holacanthus tubicen* Cuvier and Valenciennes).
- 2801. Centropyge passer** (Valenciennes).
West coast of tropical America; Cape San Lucas to Galapagos Islands.
Holacanthus passer Valenciennes, Voy. *Vénus*, 1846, 327, pl. 6, Galapagos Archipelago.
Holacanthus strigatus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 243, Cape San Lucas.
- 2802. Centropyge clarionensis** (Gilbert).
Clarion, Socorro, and San Benedicto Islands of the Revillagigedo group.
Holacanthus clarionensis Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 72, Revillagigedo Islands; Clarion, Socorro, and San Benedicto.
- 2803. Centropyge lunata** (Blosser).
St. Croix.
Holacanthus lunatus Blosser, Ann. Carnegie Mus., VI, 1909, 299, St. Croix.
This small species with low fins and rounded caudal if fairly mature can not be placed in *Holacanthus*. It seems to belong to the genus *Centropyge*, a genus thus far known only from the Pacific.
- Genus 970. HOLACANTHUS** Lacépède. *Catalineta*.
Holacanthus Lacépède, Hist. Nat. Poiss., IV, 1803, 525 (*Chætodon tricolor* Bloch).
- 2804. Holacanthus tricolor** (Bloch). *Rock beauty; Catalineta; Vaqueta de los colores*.
West Indies and Bermudas; south to Bahia.
Chætodon tricolor Bloch, Naturgesch. Ausl. Fische, IX, 1795, 103, Cuba.
Catalineta Parra, Descr. Dif. Piez., Hist. Nat. Cuba, 1787, 12, Pl. VII, fig. 2, Cuba.
- Genus 971. ANGELICHTHYS** Jordan and Evermann.
Angelichthys Jordan and Evermann, Check List, 1895, 420 (*Chætodon ciliaris* Linnaeus).
- 2805. Angelichthys ciliaris** (Linnaeus). *Angelfish; Isabelita; Yellow angel; Golden angel; Blue angel*.
West Indies north to Key West.
Chætodon ciliaris Linnaeus, Syst. Nat., Ed. X, 1758, 276, Indies, in part.
Isabelita Parra, Dif. Piezas, Hist. Nat. Cuba, 1787, 11, pl. 7, fig. 1, Cuba.
Chætodon squamulosus Shaw, Naturalist's Miscellany, VIII, 1796, 275; after the angelfish of Catesby.
Chætodon parrae Bloch and Schneider, Syst. Ichth., 1801, 235, Cuba; after *Isabelita* of Parra.
Holacanthus cornutus Desmarest, Décade Ichthyologique, 1823, 44, pl. 3, fig. 3, Cuba.
Holacanthus formosus Castelnau, Anim. Amer. Sud, Poiss., 1855, 19, Pl. XI, fig. 2, Bahia.
- 2806. Angelichthys isabelita** Jordan and Rutter. *Angelfish*.
West Indies; north to Key West, Fla.
Angelichthys isabelita Jordan and Rutter, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 1685, Key West.
- 2807. Angelichthys townsendi** Nichols and Mowbray.
Florida.
Angelichthys townsendi Nichols and Mowbray, Bull. Amer. Mus. Nat. Hist., XXXIII, 1914, 581, Key West, Fla.

Family 223. ZANCLIDÆ. Moorish idols

Genus 972. ZANCLUS Cuvier and Valenciennes

Zanclus Cuvier and Valenciennes, Hist. Nat. Poiss., VII, 1831, 70 (102) (*Chætodon cornutus* Linnæus).

Gonopterus Gronow, Cat. Fish., ed. Gray, 1854, 77 (*G. mærens* Gronow = *Chætodon cornutus* Linnæus).

Gnathocentrum Guichenot, Ann. Maine et Loire, IX, 1866, 4 (*Zanclus centrognathus* Cuvier and Valenciennes); young

2808. *Zanclus cornutus* (Linnæus). Moorish idol, Besan; Piquier; Porte enseigne.

Warm seas of the Pacific; Revillagigedo, Cocos, and Galapagos islands; Hawaii; Samoa; East Indies and islands of Polynesia; common and widely distributed throughout the Pacific.

Chætodon cornutus Linnæus, Syst. Nat., Ed. X, 1758, 273, Indies; after Artedi.

Zanclus centrognathus Cuvier and Valenciennes, Hist. Nat. Poiss., VII, 1831, 397 (528), near Equator, 75° E.

Gonopterus mærens Gronow, Cat. Fishes, ed. Gray, 1854, 77, India.

Family 224. ACANTHURIDÆ. Surgeonfishes; Tangs

Genus 973. ACANTHURUS Forskål. Surgeonfishes.

Acanthurus Forskål, Descr. Anim., 1775, 59 (*Chætodon unicornis*), etc.

Harpurus (Forster) Gmelin, Enchiridion, 1778, 84 (*H. fasciatus* Forster).

Aspisurus Lacépède, Hist. Nat. Poiss., IV, 1803, 556 (*Chætodon sohar* Forskål).

Acronurus Gronow, Cat. Fishes, 1854, 190 (*Teuthis hepatus* Linnæus).

Rhombotides (Klein) Bleeker, Neder. Tijdschr. Dierk., I (*Chætodon triostegus* Linnæus).

Subgenus HARPURUS Forster.

2809. *Acanthurus triostegus* (Linnæus).

South Pacific, from New Zealand and Australia to the Revillagigedos.

Chætodon triostegus Linnæus, Syst. Nat., Ed. X, 1758, 274, India.

Harpurus fasciatus Forster, Enchiridion, 1778, 84, South Seas.

Acanthurus zebra Lacépède, Hist. Nat. Poiss., III, 1802, 548, fig. 3, no locality.

Chætodon couaga Lacépède, loc. cit. IV, 1802, 727, no locality.

Teuthis australis Gray, in King, Surv. Australia, II, 1826, 435.

Acanthurus hirudo Bennett, Ceylon Fishes, 1851, 11, pl. 11, Ceylon.

Acanthurus subarmatus Bennett, Whaling Voyage, II, 1840, 278, Raiatea, Society Islands.

Subgenus TEUTHIS.

2810. *Acanthurus cæruleus* Bloch and Schneider. Barbero; Blue surgeon; Blue tang.

West Indies, Key West, and Bermuda to Bahia, north to Woods Hole, Mass.

Acanthurus cæruleus Bloch and Schneider, Syst. Ichth., 1801, 214, Carolinas; Habana; Jamaica; after Catesby, Parra, and Browne.

Acanthurus broussoneti Desmarest, Prem. Dec. Ichth., 1823, 26, Cuba.

Acanthurus brevis Poey, Memorias, II, 1861, 207, Antilles and Habana.

Acronurus cæruleatus Poey, Enumeratio, 1875, 69, Cuba; young.

2811. *Acanthurus hepatus* (Linnæus). Common surgeon; Doctor fish; Lancet fish; Tang; Tangbarbero; Saigneur; Barbero.

West Indian fauna; Florida to Bahia; Key West and Cuba; Charleston; north to Woods Hole, Mass.

Teuthis hepatus Linnæus, Syst. Nat., Ed. XII, 1766, 507, Carolinas.

Chætodon chirurgus Bloch, Naturgesch. Ausl. Fische, III, 1787, 99, Martinique; on drawing by Plumier.

Acanthurus phlebotomus Cuvier and Valenciennes, Hist. Nat. Poiss., X, 1835, 129 (176), pl. 287 Martinique, Brazil, Habana, New York.

Acronurus fuscus Gronow, Fish., ed. Gray, 119, 1854, West Indies; young.

Acronurus carneus Poey, Memorias, II, 1860, 207, Cuba.

2812. *Acanthurus bahianus* Castelnau. *Barbero; Ocean tang.*
West Indies to Brazil.
Acanthurus bahianus Castelnau, Anim. Amer. Sud, Poiss., 1855, 24,
Pl. XI, fig. 1, Bahia.
Acanthurus tractus Poey, Memorias, II, 1861, 208, Cuba.
Acronurus nigraculus Poey, Enumeratio, 1875, 69, Cuba.
2813. *Acanthurus crestonis* (Jordan and Starks). *Barbero negro.*
West coast of Mexico and Central America, Mazatlan to Panama.
Teuthis crestonis Jordan and Starks, Proc. Calif. Acad. Sci., ser. 2,
1895, V, 485, pl. 47, Mazatlan.
2814. *Acanthurus aliala* Lesson. *Philosophe.*
East Indies to the west coast of Mexico; abundant at Socorro and
Clarion Islands.
Acanthurus aliala Lesson, Voy. Coquille, Zool., II, 1830, 150, Oualan.
Acanthurus glaucopareus Cuvier and Valenciennes, Hist. Nat. Poiss.,
X, 1835, 139 (190), Oualan; Molucca.
- Genus 974. *XESURUS* Jordan and Evermann.
Xesurus Jordan and Evermann, Check List, 1895, 421 (*Prionurus*
punctatus Gill).
2815. *Xesurus punctatus* (Gill). *Cochinito.*
Cape San Lucas; Mazatlan; Creston Island.
Prionurus punctatus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 242,
Cape San Lucas.
2816. *Xesurus clarionis* Gilbert and Starks.
Galapagos Islands.
Xesurus clarionis Gilbert and Starks, Proc. U. S. Nat. Mus., XIX,
1896, 437, 445, Clarion Island, Galapagos Archipelago.
- Genus 975. *CTENOCHÆTUS* Gill.
Ctenodon Bonaparte, in Klunzinger, Fische Rothen Meeres, 1884,
I Theil, 54 (*Acanthurus strigosus* Bennett); name preoccupied.
Ctenochætus Gill, Proc. U. S. Nat. Mus., VII, 1884, 277 (*Acanthurus*
strigosus Bennett).
2817. *Ctenochætus striatus* (Quoy and Gaimard). *Kale.*
South seas, recorded from Cocos Island.
Acanthurus striatus Quoy and Gaimard, Voyage l'Uranie, Zool., 1824,
373, pl. 63, fig. 3, Guam.
Acanthurus strigosus Bennett, Zool. Jour., IV, XIII, Art. III, 1828, 41,
Honolulu.
Acanthurus ctenodon Cuvier and Valenciennes, Hist. Nat. Poiss., X,
1835, 178 (241), pl. 289, the Carolines and New Guinea.

Order RR. CATAPHRACTI

Family 225. SCORPÆNIDÆ. Rockfishes and scorpionfishes

- Genus 976. *SEBASTES* Cuvier. *Rosefishes.*
Sebastes Cuvier, Règne Anim., ed. 2, II, 1829, 166 (*Perca norvegica*
Ascanius=*Perca marina* Linnæus).
Eusebastes Sauvage, Nouv. Archives Mus. Paris, 1878, (2), 1, 1421
(*Perca norvegica* Ascanius).
2818. *Sebastes marinus* (Linnæus). *Rosefish; Redfish, Snapper, Hemdurgan;*
Red seafish; Norway haddock.
North Atlantic, both coasts, south to Faroe Islands; Norway; Maine;
in deep water off coast of middle New Jersey.
Perca marina Linnæus, Syst. Nat., Ed. X, 1758, 290, Norway.
Perca norvegica Ascanius, Icones Rev. Nat., II, 1772, 7, Norway.
Holocentrus sanguineus Faber, Natur. der Fische Islands, 1829, 126,
Iceland.
Sebastes fasciatus Storer, Proc. Bost. Soc. Nat. Hist., V, 1854, 31,
Provincetown, Mass.
Sebastes regulus Ekstrom, Skand. Fish., Ed. I, 197, plate only.

2819. *Sebastes viviparus* Krøyer.

North Atlantic, in shallow bays, more southerly not certainly recorded from America.

Sebastes viviparus Krøyer, Naturh. Tidsskr., I, 1845, 275, Norway, in shallow water.

Genus 977. SEBASTOLOBUS Gill.

Sebastolobus Gill, Rept. Smithsonian. Inst., 1880, 375 (*Sebastes macrochir* Günther).

2820. *Sebastolobus altivelis* Gilbert.

Aleutian Islands, Alaska, and in deep water off the coast of California. *Sebastolobus altivelis* Gilbert, Rept. U. S. Fish Com., XIX, 1893, 410, pl. 23, south of Alaska Peninsula, at Albatross station 3338, in 625 fathoms.

2821. *Sebastolobus alascanus* Bean.

Bering Sea; Pacific coast of Alaska, Washington, Oregon, and California, in deep water; recently taken in San Pedro.

Sebastolobus alascanus Bean, Proc. U. S. Nat. Mus., XIII, 1890, 44, off Trinity Islands, Alaska, at Albatross station 2853, 56° N., 154° W., in 159 fathoms.

Genus 978. EMMELAS Jordan and Evermann.

Emmelas Jordan and Evermann, Fishes North and Mid. Amer., 1898, 1773 (*Sebastes glaucus* Hilgendorf).

2822. *Emmelas glaucus* (Hilgendorf).

Hokkaido, north to Bering Island.

Sebastes glaucus Hilgendorf, Sitzber. Ges. Naturf. Freunde, Berlin, 1880, 172, Hokkaido, north Japan; no description given.

Genus 979. SEBASTODES⁸⁸ Gill. Rockfishes.

Sebastes Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 165 (*Sebastes paucispinis* Ayres).

2823. *Sebastes paucispinis* (Ayres). Bocaccio; Mérou; Jack.

San Diego to Barclay Sound, British Columbia; common south. A valued food fish.

Sebastes paucispinis Ayres, Proc. Calif. Acad. Nat. Sci., I, 1854, 6, San Francisco.

2824. *Sebastes jordani* Gilbert.

Coast of California in deep water.

Sebastes jordani Gilbert, Rept. U. S. Fish Com., XIX, 1893, 466, coast of California, at Albatross station 2935, 3103, and 3114, in 64 to 124 fathoms.

2825. *Sebastes goodei* Eigenmann and Eigenmann.

San Diego to San Francisco; not common.

Sebastes goodei Eigenmann and Eigenmann, Proc. Calif. Acad. Sci., III, 1890, 12, San Diego, Calif.

Genus 980. SEBASTOSOMUS Gill.

Sebastosomus Gill, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 59 (*Sebastes melanops* Girard).

Primospina Eigenmann and Beeson, Am. Nat., XXVII, 669 (*Sebastichthys mystinus* Jordan and Gilbert).

Subgenus PRIMOSPINA Eigenmann and Beeson.**2826. *Sebastosomus flavidus* (Ayres). Yellowtail rockfish.**

San Diego to San Francisco; common northward.

Sebastes flavidus Ayres, Proc. Calif. Acad. Nat. Sci., ser. I, II, 1862, 209, fig. 64, San Francisco.

⁸⁸ The 13-spined allies of *Sebastes* constitute a most striking feature of the fauna of the north Pacific, the species being very numerous on the rocky coast of California, Alaska, and Japan, a few also in Chile. The species are in general well defined, showing little individual variation and no sex changes. It is extremely difficult, however, to divide them into genera, the various traits being intermingled to a remarkable degree. Yet such species as *paucispinis*, *rosaceus*, and *nigrocinctus* could hardly stand in one genus in a natural system. It may be noted that the group called *Sebastes* is the simplest in organization and also the oldest, four well-marked species related to *Sebastes paucispinis* occurring in the upper Miocene of California.

- 2827. *Sebastosomus serranoides*** (Eigenmann and Eigenmann).
Cortez Banks, off San Diego.
Sebastodes serranoides Eigenmann and Eigenmann, Proc. Calif. Acad. Sci., 2d ser., III, 1890, 36, Cortez Banks.
- 2828. *Sebastosomus melanops*** (Girard).
Pacific coast of America, from Monterey to Sitka.
Sebastodes melanops Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 135, Astoria, Oreg.
Sebastosomus simulans Gill, loc. cit., XVI, 1864, 147, Cape Flattery.
- 2829. *Sebastosomus mystinus*** (Jordan and Gilbert). *Pêche prêtre; Priestfish; Black rockfish.*
Pacific coast of America, from Aleutian Islands to San Diego.
Sebastichthys mystinus Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 455, San Francisco.
- 2830. *Sebastosomus ciliatus*** (Tilesius).
Coast of Alaska.
Epinephelus ciliatus Tilesius, Mem. Acad. Sci. St. Petersburg, IV, 1810, 474, Aleutian Islands.
Perca variabilis Pallas, Zoogr. Rosso-Asiat., III, 1811 (1831), 241, Aleutian Islands; including *S. aleuticus*.
- Genus 981. ROSICOLA** Jordan and Evermann.
Rosicola Jordan and Evermann, Check List, 1895, 429 (*Sebastosomus pinniger* Gill).
- 2831. *Rosicola babcocki*** (Thompson).
Coast of Alaska and British Columbia, common.
Sebastodes babcocki W. F. Thompson, Fisheries British Columbia, 1914, Middleton Island, Alaska.
- 2832. *Rosicola pinniger*** (Gill). *Floma; Orange rockfish.*
Pacific coast of America, from San Diego to Puget Sound.
Sebastosomus pinniger Gill, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 147, San Francisco.
- 2833. *Rosicola miniatus*** (Jordan and Gilbert). *Rasciera; Rasher.*
Pacific coast of America, from San Francisco to San Diego.
Sebastichthys miniatus Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 70, Monterey, Calif.
- 2834. *Rosicola alexandri*** (Evermann and Goldsborough).
Monterey Bay.
Sebastodes alexandri Evermann and Goldsborough, Proc. U. S. Nat. Mus., XXXI, 1907, 651, Monterey Bay in 65 fathoms.
- Genus 982. ZALOPYR** Jordan and Evermann.
Zalopyr Jordan and Evermann, Fishes North and Mid. Amer., 1898, 1795 (*Sebastodes aleutianus* Jordan and Evermann).
- 2835. *Zalopyr aleutianus*** (Jordan and Evermann).
Alaska; Aleutian Islands.
Sebastodes aleutianus Jordan and Evermann, Fishes North and Mid. Amer., 1898, 1795, Shelikof Straits, Alaska.
- 2836. *Zalopyr atrovirens*** (Gilbert).
Monterey, Calif.
Sebastodes atrovirens Gilbert, in Jordan and Evermann, Check List, 1895, 429, and Fishes North and Mid. Amer., 1898, 1797, San Francisco.
- 2837. *Zalopyr atrovirens*** (Jordan and Gilbert). *Garrupa.*
Coast of California, from San Diego, to San Francisco.
Sebastichthys atrovirens Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 289, Monterey, Calif.
- Genus 983. ACUTOMENTUM**⁶⁰ Eigenmann and Beeson.
Acutomentum Eigenmann and Beeson, Amer. Nat., XXVII, 1893, 669 (*Sebastes ovalis* Ayres).

⁶⁰ As here arranged, this is far from a natural assemblage.

2838. *Acutomentum ovale* (Ayres). *Viwa*; *Widowfish*.
Pacific coast of United States from San Diego to San Francisco.
Sebastes ovalis Ayres, Proc. Calif. Acad. Nat. Sci., II, 1862, 209-212,
fig. 65, San Francisco.
2839. *Acutomentum prorigerum* (Jordan and Gilbert).
San Diego to San Francisco.
Sebastichthys proriger Jordan and Gilbert, Proc. U. S. Nat. Mus., III,
1880, 327, Monterey, Calif.
2840. *Acutomentum brevispine* (Bean).
Coast of Alaska.
Sebastichthys proriger var. *brevispinis* Bean, Proc. U. S. Nat. Mus.,
VI, 1883, 359, Hassler Harbor, Alaska.
2841. *Acutomentum clavilatum* (Starks).
Puget Sound.
Sebastes claviatus Starks, Ann. Carnegie Mus., VII, 1911, 181, San
Juan Islands, Puget Sound.
2842. *Acutomentum entomelas* (Jordan and Gilbert).
Pacific coast of America, from Port Harford to Monterey Bay.
Sebastichthys entomelas Jordan and Gilbert, Proc. U. S. Nat. Mus.,
III, 1880, 142, Monterey.
2843. *Acutomentum wilsoni* (Gilbert).
Monterey Bay.
Sebastes wilsoni Gilbert, Proc. U. S. Nat. Mus., XLVIII, 1915, 333,
pl. 16, fig. 8, Monterey Bay.
2844. *Acutomentum rufum* (Eigenmann and Eigenmann).
Pacific coast of America, near San Diego; Cortez Banks.
Sebastes rufus Eigenmann and Eigenmann, Proc. Calif. Acad. Sci.,
2d ser. III, 1890, 13, Point Loma; Cortez Banks.
2845. *Acutomentum macdonaldi* Eigenmann and Beeson.
San Diego, Calif.
Acutomentum macdonaldi Eigenmann and Beeson, Am. Nat., XXVII,
1893, 669, San Diego, Calif.
2846. *Acutomentum eigenmanni* (Cramer).
Coast of California.
Sebastes eigenmanni Cramer, Proc. Calif. Acad. Sci., VI, 1896, 239,
Pl. XLII, Monterey, Calif.
2847. *Acutomentum hopkinsi* (Cramer).
Monterey Bay, Calif.
Sebastes hopkinsi Cramer, Proc. Calif. Acad. Sci., V, 1895, 594, with
plate, Monterey Bay, Calif.
2848. *Acutomentum alutum* (Gilbert).
Pacific coast of America, from Bering Sea to Santa Barbara.
Sebastichthys alutus Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 76,
Santa Barbara Islands, Calif.
- Genus 984. *ROSEBASTES* Jordan and Evermann.
Eosebastes Jordan and Evermann, Check List, 1895 430 (*Sebastichthys
aurora* Gilbert).
2849. *Eosebastes aurora* (Gilbert).
Santa Barbara Islands, in deep water.
Sebastichthys aurora Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 80,
Santa Barbara Islands, in 266 fathoms.
2850. *Eosebastes melanostomus* (Eigenmann and Eigenmann).
Coast of California to Alaska.
Sebastes melanostomus Eigenmann and Eigenmann, Proc. Calif.
Acad. Sci., 2d ser., III, 1890, 17, Point Loma, near San Diego, Calif.
2851. *Eosebastes introniger* (Gilbert).
Santa Barbara to Bering Sea.
Sebastichthys introniger Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 81,
Santa Barbara Islands.

- 2852. *Eosebastes saxicola* (Gilbert).**
Southern California to southeast Alaska in moderate depth.
Sebastichthys saxicola Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 78,
Santa Barbara Islands at Albatross stations 2893, 2907, and others,
in 44 to 155 fathoms.
- 2853. *Eosebastes deani* (Starks).**
Puget Sound.
Sebastodes deani Starks, Ann. Carnegie Mus., VII, 1911, 178, Puget
Sound.
- 2854. *Eosebastes crameri* (Jordan).**
Coast of Oregon.
Sebastodes crameri Jordan, Proc. U. S. Nat. Mus., XIX, 1896, 451,
coast of Oregon, at Albatross station 3091.
- 2855. *Eosebastes swifti* (Evermann and Goldsborough).**
Southern Alaska.
Sebastodes swifti Evermann and Goldsborough, Bull. U. S. Bur. Fish.,
XXVI, 1906, 285, Yes Bay and Kasaan Bay, Alaska.
- 2856. *Eosebastes semicinctus* (Gilbert).**
Coast of California.
Sebastodes semicinctus Gilbert, Proc. U. S. Nat. Mus., XIX, 1896, 449,
Santa Barbara Channel, Calif.
- 2857. *Eosebastes diploproa* (Gilbert).**
Pacific coast from the Coronado Islands northward to Nanaimo,
British Columbia.
Sebastichthys diploproa Gilbert, Proc. U. S. Nat. Mus., XIII, 1890,
79, Coronado Islands at Albatross station 2935, in 124 fathoms.
- 2858. *Eosebastes emphæus* (Starks).**
Puget Sound, in deep water.
Sebastodes emphæus Starks, Ann. Carnegie Mus., VII, 1911, 183, about
San Juan Islands, Puget Sound.
- Genus 985. SEBASTOMUS Gill.**
Sebastomus Gill, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 147 (*Sebastes*
rosaceus Girard).
- 2859. *Sebastomus constellatus* (Jordan and Gilbert). *Spotted rockfish.***
Coast of California, from San Diego to San Francisco.
Sebastichthys constellatus Jordan and Gilbert, Proc. U. S. Nat. Mus.,
III, 1880, 295, Santa Barbara Channel; San Francisco.
- 2860. *Sebastomus rosaceus* (Girard). *Corsair.***
Pacific coast from San Diego to Puget Sound.
Sebastes rosaceus Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1854, 146,
San Diego, San Francisco.
Sebastes helvomaculatus Ayres, Proc. Calif. Acad. Nat. Sci., II, 1859,
26, San Francisco.
- 2861. *Sebastomus rhodochloris* (Jordan and Gilbert). *Flyfish.***
Off Monterey and San Francisco.
Sebastichthys rhodochloris Jordan and Gilbert, Proc. U. S. Nat. Mus.,
III, 1880, 144, Monterey, Calif.
- 2862. *Sebastomus chlorostictus* (Jordan and Gilbert). *Pesca vermiglia.***
San Diego; Monterey; San Francisco.
Sebastichthys chlorostictus Jordan and Gilbert, Proc. U. S. Nat. Mus.,
III, 1880, 294, Monterey, Calif.
- 2863. *Sebastomus umbrosus* (Jordan and Gilbert).**
Coast of California, Point Conception to Coronado Islands.
Sebastichthys umbrosus Jordan and Gilbert, Proc. U. S. Nat. Mus., V,
1882, 410, Santa Barbara.
Sebastodes æreus Eigenmann and Eigenmann, Proc. Calif. Acad. Sci.,
2d ser., III, 1890, 20, Coronado Islands.
- 2864. *Sebastomus ayresii* (Gilbert and Cramer).**
Coast of southern California at Cortez Banks, near San Diego.
Sebastodes ayresii Gilbert and Cramer, Proc. U. S. Nat. Mus., XIX,
1896, 450, Cortez Banks, near San Diego, Calif.

2865. *Sebastomus eos* (Eigenmann and Eigenmann).
Coast of California at Point Loma, near San Diego.
Sebastes eos Eigenmann and Eigenmann, Proc. Calif. Acad. Sci., 2d ser., III, 1890, 18, Point Loma, near San Diego, Calif.
2866. *Sebastomus gillii* (Eigenmann and Eigenmann).
Coast of California at Point Loma, near San Diego.
Sebastes gillii Eigenmann and Eigenmann, Amer. Nat., XXV, February, 1891, 154, Point Loma, near San Diego, Calif.
2867. *Sebastomus rupestris* (Gilbert).
Santa Barbara Islands northward to southeast Alaska.
Sebastichthys rupestris Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 76, Santa Barbara Islands, at Albatross station 2946, in 150 fathoms.
- Genus 986. **SEBASTOPYR**⁷⁰ Jordan and Evermann.
Sebastopyr Jordan and Evermann, Proc. Calif. Acad. Sci., 4th ser., XVI, Apr. 27, 1927, 506 (*Sebastes ruberrimus* Cramer).
2868. *Sebastopyr ruberrimus* (Cramer). *Red rockfish; Tambor.*
Pacific coast from San Diego to Puget Sound and southeastern Alaska.
Sebastes ruber of early writers, not of Ayres.
Sebastes ruberrimus Cramer, Proc. Calif. Acad. Sci., 2d ser., V, 1895, 597, pls. 62, 63, and 69, Monterey, Calif.
- Genus 987. **HISPANISCUS** Jordan and Evermann.
Hispaniscus Jordan and Evermann, Check List, 1895, 431 (*Sebastichthys rubrivinctus* Jordan and Gilbert).
2869. *Hispaniscus rubrivinctus* (Jordan and Gilbert). *Spanish flag.*
California coast from San Diego to Monterey; not rare south. A most brilliantly colored fish.
Sebastichthys rubrivinctus Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 291, Santa Barbara Channel.
2870. *Hispaniscus levis* (Eigenmann and Eigenmann).
Coast of California, from San Diego to Monterey.
Sebastichthys levis Eigenmann and Eigenmann, West American Scientist, Nov. 9, 1889, 128, San Diego, Calif.
2871. *Hispaniscus zacentrus* (Gilbert).
Coast of California.
Sebastichthys zacentrus Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 77, Santa Barbara Islands, at Albatross station 2893 and 2946, in 145 and 150 fathoms.
2872. *Hispaniscus elongatus* (Ayres). *Reina.*
California coast, from San Diego to San Francisco.
Sebastes elongatus Ayres, Proc. Calif. Acad. Nat. Sci., II, 1858-1862 (Oct. 17, 1859), 26, San Francisco.
2873. *Hispaniscus sinensis* (Gilbert).
Gulf of California.
Sebastichthys sinensis Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 81, Gulf of California, at Albatross station 3015 in 145 fathoms.
- Genus 988. **AUCTOSPINA** Eigenmann and Beeson.
Auctospina Eigenmann and Beeson, Amer. Nat., XXVII, 1893, 670 (*Sebastes auriculatus* Girard).
2874. *Auctospina auriculata* (Girard). *Brown rockfish.*
Pacific coast of America, from Cape Mendocino to Cedros Island; common.
Sebastes auriculatus Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 131, 146, San Francisco.
Sebastes ruber Ayres, Proc. Calif. Acad. Nat. Sci., I, 1854 (Sept. 11), 7, San Francisco.
Sebastes ruber parvus Ayres, loc. cit., I, 1854 (Sept. 11), 7, San Francisco.

⁷⁰ This group is allied to *Sebastomus*, but of much coarser build, the cranial spines in the adult rough with blunt spinules.

2875. *Auctospina dallii* (Eigenmann and Beeson).
Pacific coast of America, from San Francisco to Puget Sound; perhaps
a variation of *A. auriculata*.
Pteropodus dallii Eigenmann and Beeson, Amer. Nat., XXVIII, January,
1894, 66, San Francisco.

Genus 989. **PTEROPODUS** Eigenmann and Beeson.

- Pteropodus* Eigenmann and Beeson, Amer. Nat., XXVII, 1893, 670
(*Sebastichthys maliger* Jordan and Gilbert); not *Pteropus*, a genus of
birds.
2876. *Pteropodus rastrelliger* (Jordan and Gilbert). *Grass rockfish*.
California coast, from San Diego to San Francisco.
Sebastichthys rastrelliger Jordan and Gilbert, Proc. U. S. Nat. Mus., III,
1880, 296, Monterey, Calif.
2877. *Pteropodus caurinus* (Richardson).
Pacific coast of America from Puget Sound to Sitka.
Sebastes caurinus Richardson, Voy. *Sulphur*, Ichthyology, 1845, 77,
pl. 41, fig. 1, Sitka.
2878. *Pteropodus vexillaris* (Jordan and Gilbert).
California coast, from San Diego to Cape Mendocino, replacing *caurinus*
southward.
Sebastichthys vexillaris Jordan and Gilbert, Proc. U. S. Nat. Mus., III,
1880, 292, Santa Barbara Channel; San Francisco.
2879. *Pteropodus maliger* (Jordan and Gilbert). *Yellow-backed rock cod*;
Brown rock cod.
Pacific coast of America, from Monterey to Sitka; not rare.
Sebastichthys maliger Jordan and Gilbert, Proc. U. S. Nat. Mus., III,
1880, 322, San Francisco.
2880. *Pteropodus gilberti* (Cramer).
Coast of California.
Sebastes gilberti Cramer, Proc. Calif. Acad. Sci., VI, 1896, 241, Pl.
XLIII, San Francisco.
2881. *Pteropodus carnatus* (Jordan and Gilbert). *Flesh-colored rock cod*.
California coast, from San Diego to Point Reyes, replacing *P. chrys-*
omelas in shallow water.
Sebastichthys carnatus Jordan and Gilbert, Proc. U. S. Nat. Mus., III,
1880, 73, Monterey, Calif.
2882. *Pteropodus chrysomelas* (Jordan and Gilbert). *Black and yellow*
rock cod.
Pacific coast of America, from Puget Sound to San Diego; common in
moderate depths.
Sebastichthys chrysomelas Jordan and Gilbert, Proc. U. S. Nat. Mus.,
III, 1880, 455, 465, Monterey, Calif.
2883. *Pteropodus nebulosus* (Ayres). *Yellow-spotted rock cod*.
Pacific coast; southeastern Alaska; Puget Sound region, Vancouver to
Point Conception; common.
Sebastes nebulosus Ayres, Proc. Calif. Acad. Nat. Sci., I, 1854 (Sept 11),
5, San Francisco.
Sebastes fasciatus Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 146,
Presidio, California; not of Storer.
Sebastichthys fasciolaris Lockington, Proc. U. S. Nat. Mus., III, 1880,
297, San Francisco.
- Genus 990. **SEBASTOCARUS**⁷¹ Jordan and Evermann.
Sebastocarus Jordan and Evermann, Proc. Calif. Acad. Sci., 4th ser.,
XVI, Apr. 27, 1927, 507 (*Sebastichthys serriceps* Jordan and Gilbert).
2884. *Sebastocarus serriceps* (Jordan and Gilbert). *Treefish*.
Coast of California, from Point Reyes to Cedros Island; common south.
Sebastichthys serriceps Jordan and Gilbert, Proc. U. S. Nat. Mus., III,
1880, 38, Santa Barbara and Santa Catalina Islands, Calif.

⁷¹ This genus is nearly allied to *Sebastichthys* in the more compressed body and especially in
the short and high ridges on the head, all of which are free from serrations or accessory tubercles.

Genus 991. SEBASTICHTHYS Gill.

Sebastichthys Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 278, 329
(*Sebastes nigrocinctus* Ayres).

2885. *Sebastichthys nigrocinctus* (Ayres). Black-banded rock cod.

Monterey Bay to Naha Bay, Alaska.

Sebastes nigrocinctus Ayres, Proc. Calif. Acad. Nat. Sci., II, 1859, 25,
fig 6, San Francisco.

Genus 992. METZELAARIA Jordan.

Metzelaaria Jordan, Class. Fishes, 1923, 209 (*Scorpæna tridacimspinosa*
Metzelaar).

2886. *Metzelaaria tridacimspinosa* (Metzelaar).

Caribbean Sea.

Scorpæna tridacimspinosa Metzelaar, Tropisch Atlantische Visschen,
1919, 146, fig. 44, Bonaire, Aruba.

Genus 993. SCORPÆNODES Bleeker.

Scorpænodes Bleeker, Nat. Hist. Ned. Ind., XIII, 1857, 371 (*Scorpæna*
polylepis Bleeker).

Sebastopsis Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 278 (*Scorpæna*
polylepis Bleeker).

Sebastodes Sauvage, Ann. Sci. Nat. Zool., V, 1873, 1 (*Sebastes minutus*
Cuvier); not *Sebastodes* Gill, 1861.

2887. *Scorpænodes xyris* (Jordan and Gilbert).

West coast of Mexico.

Sebastopsis xyris Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882,
369, Cape San Lucas, Lower California.

Genus 994. HELICOLENUS Goode and Bean.

Helicolenus Goode and Bean, Oceanic Ichth., 1896, 248 (*Scorpæna*
dactylopterus De la Roche).

2888. *Helicolenus dactylopterus* (De la Roche). Seran imperial; Fanegal; Cardonnera; Scorfannudi; Funal; Crabra; Redfish.

Deep waters of Atlantic off both coasts from Narragansett and Chesapeake Bays, and to coasts of Italy and Spain.

Scorpæna dactyloptera De la Roche, Ann. Mus., XIII, 1809, pl. 22,
fig. 2, Ivica, Barcelona.

Sebastes imperialis Cuvier and Valenciennes, Hist. Nat. Poiss., IV,
1829, 246 (336), Nice.

Helicolenus maderensis Goode and Bean, Oceanic Ichth., 1895, 250,
Madeira, and in the Gulf Stream.

Genus 995. SCORPÆNA (Artedi) Linnæus.

Scorpæna (Artedi) Linnæus, Syst. Nat., ed. X, 1758 266 (*S. porcus*
Linnæus).

Parascorpæna Bleeker, Versl. Ak. Amsterdam., IX, pt. 3, 1876, 295
(*Scorpæna picta* Kuhl and van Hasselt in Cuvier and Valenciennes).

Pseudosebastes Sauvage, Nouv. Arch. Mus. Hist. Nat. Paris, II, 1878
(*Sebastes bougainvillei* Cuvier and Valenciennes).

2889. *Scorpæna atlantica* Nichols and Breder.

Coast of Texas

Scorpæna russula atlantica Nichols and Breder, Proc. Biol. Soc. Wash.,
XXXVII, 1924 (Feb. 21), 21, Pl. VII, off Galveston, Tex

2890. *Scorpæna colesi* Nichols.

Coast of North Carolina.

Scorpæna colesi Nichols, Bull. Amer. Mus. Nat. Hist., XXXIII, 1914,
537, fig. 1, Cape Lookout, N. C.

2891. *Scorpæna plumieri* Bloch. Rescacio; Poison grouper; Plumier's pigfoot.

West Indies and Brazil, north to Florida; rarely northward to Woods Hole.

Scorpæna plumieri Bloch, Nya. Handl. Stockh., X, 1789, 234, Martinique.

Scorpæna bufo Cuvier and Valenciennes, Hist. Nat. Poiss., IV, 1829,
224 (306), Martinique.

Scorpæna rescacio Poey, Memorias, II, 1861, 169, Cuba.

Apistes exul Gosse, Nat. Sojourn Jamaica, 1851, 207, Jamaica.

2892. *Scorpæna mystes* Jordan and Starks. *Lapon*.
Coast of Mexico
Scorpæna mystes Jordan and Starks, Proc. Calif. Acad. Sci., 2d ser. V,
1895, 491, pl. 52, Mazatlan, Mexico.
2893. *Scorpæna grandicornis* Cuvier and Valenciennes *Lionfish, Poison
grouper; Sculpin*.
Florida Keys to Brazil, in the Gulf Stream to Woods Hole, Mass.
Scorpæna grandicornis Cuvier and Valenciennes, Hist. Nat. Poiss., IV,
1829, 227 (309), pl. 86, Martinique, Porto Rico, Habana, San Do-
mingo.
2894. *Scorpæna brasiliensis* Cuvier and Valenciennes.
Atlantic coast, from Charleston to Rio Janeiro.
Scorpæna brasiliensis Cuvier and Valenciennes, Hist. Nat. Poiss., IV,
1829, 224 (305), Brazil.
Scorpæna stearns Goode and Bean, Proc. U. S. Nat. Mus., V, 1882, 421,
Pensacola, Fla.
2895. *Scorpæna inermis* Cuvier and Valenciennes.
West Indies, north to Florida.
Scorpæna inermis Cuvier and Valenciennes, Hist. Nat. Poiss., IV, 1829,
228 (311), Martinique
Scorpæna occipitalis Poey, Memorias, II, 1861, 171, Cuba.
Scorpæna calcarata Goode and Bean, Proc. U. S. Nat. Mus., V, 1882,
422, Clearwater Harbor, Fla.
2896. *Scorpæna sonoræ* Jenkins and Evermann.
Guaymas, Gulf of California, and Santa Margarita Island.
Scorpæna sonoræ Jenkins and Evermann, Proc. U. S. Nat. Mus., XI,
1888, 150, Guaymas, Sonora.
2897. *Scorpæna guttata* Girard. *Scorpene; Scorpion; Sculpin*.
Coast of California, from Monterey southward to Cedros Island.
Scorpæna guttata Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 145,
Monterey.
2898. *Scorpæna russula* Jordan and Bollman.
Pacific coast of Colombia.
Scorpæna russula Jordan and Bollman, Proc. U. S. Nat. Mus., XII,
1889, 165, Pacific coast of Colombia.
2899. *Scorpæna histrio* Jenyns.
Pacific coast of America, Panama to Juan Fernandez; Galapagos Islands.
Scorpæna histrio Jenyns, Voy. *Beagle*, Fishes, 1842, 35, pl. 8, Chatham
Island, Galapagos Archipelago.
2900. *Scorpæna pannosa* Cramer.
Panama.
Scorpæna pannosa Cramer, Proc. U. S. Nat. Mus., XIX, 1896, 446,
with plate, Panama.
2901. *Scorpæna albofasciata* Metzelaar.
Caribbean Sea.
Scorpæna albofasciata Metzelaar, Tropisch Atlantische Vissch., 1919,
145, fig. 43; Bonaire, Arubi.
2902. *Scorpæna albifimbria* Evermann and Marsh.
Porto Rico.
Scorpæna albifimbria Evermann and Marsh, Bull. U. S. Fish Com., XX,
1900, 275, fig. 82, Culebra Island; Porto Rico.
2903. *Scorpæna nuttingi* Evermann and Seale.
West Indies (Barbados).
Scorpæna nuttingi Evermann and Seale, University of Iowa Studies
Nat. Hist., X, 1924, 14, 39, Carlisle Bay, Barbados.
2904. *Scorpæna agassizii* Goode and Bean.
Mid-ocean east of Cuba.
Scorpæna agassizii Goode and Bean, Oceanic Ichth., 1896, 247, fig. 243,
latitude 32° 13' N., longitude 39° 10' W.

2905. *Scorpaena cristulata* Goode and Bean.
Atlantic Ocean, off coast of Georgia; perhaps also from northern Spain.
Scorpaena cristulata Goode and Bean, Oceanic Ichth., 1896, 247, fig. 242, off Georgia.
Scorpaena echinita Koehler, Ann. Univ. Lyons, XXVI, 1896, 474, pl. 27, figs 4 and 6, Bay of Biscay, in 700 fathoms.
- Genus 996. **MERINTHE** Snyder.
Merinthe Snyder, Bull. U. S. Fish Com., XXII, 1902, 536 (*Sebastes macrocephalus* Sauvage).
2906. *Merinthe nematophthalma* (Günther).
West Indies, exact locality uncertain.
Sebastes nematophthalmus Günther, Cat., II, 1861, 99, West Indies.
- Genus 997. **PONTINUS** Poey.
Pontinus Poey, Memorias, II, 1861, 172 (*P. castor* Poey).
2907. *Pontinus castor* Poey.
Cuba.
Pontinus castor Poey, Memorias, II, 1861, 173, Habana, Cuba.
2908. *Pontinus furcirhinus* Garman.
Eastern Pacific in deep water.
Pontinus furcirhinus Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 51, Pl. VII, numerous *Albatross* stations off Panama.
2909. *Pontinus pollux* Poey.
Cuba.
Pontinus pollux Poey, Memorias, II, 1861, 174, Habana, Cuba.
2910. *Pontinus rathbuni* Goode and Bean.
Coast of North Carolina, probably in the Gulf Stream.
Pontinus rathbuni Goode and Bean, Oceanic Ichth., 1895, 255, fig. 245, off Cape Hatteras, N. C.
2911. *Pontinus macrolepis* Goode and Bean.
Yucatan.
Pontinus macrolepis Goode and Bean, Oceanic Ichth., 1895, 257, fig. 247, off Yucatan.
2912. *Pontinus longispinis* Goode and Bean.
Coast of western Florida.
Pontinus longispinis Goode and Bean, Oceanic Ichth., 1895, 258, fig. 246, west coast of Florida, lat. 28° 36' N., long. 85° 33' 30'' W., in 111 fathoms.
2913. *Pontinus beanorum* Evermann and Marsh.
Porto Rico.
Pontinus beanorum Evermann and Marsh, Bull. U. S. Fish Com., XX, pt. 1, 1900, 279, fig. 85, San Juan Harbor, Porto Rico.
2914. *Pontinus sierra* (Gilbert).
Gulf of California.
Scorpaena (*Sebastoplus*) *sierra* Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 82, Gulf of California, at *Albatross* stations 2996 and 3011 in 112 and 71 fathoms.
2915. *Pontinus bergii* (Evermann and Marsh).
Porto Rico.
Scorpaena bergii Evermann and Marsh, Bull. U. S. Fish Com., XX, pt. 1, 1900, 276, fig. 83, Mayaguez, Culebra; perhaps not a *Pontinus*.
- Genus 998. **SETARCHES** Johnson.
Setarches Johnson, Proc. Zool. Soc. Lond., 1862, 177 (*S. guntheri* Johnson).
2916. *Setarches parmatius* Goode.
Coasts of Rhode Island, North Carolina, and western Florida, in deep water.
Setarches parmatius Goode, Proc. U. S. Nat. Mus., III, 1880, 480, off coast of Rhode Island.

Family 226. ANOPILOPOMIDÆ. Skilfishes; Sablefishes

Genus 999. ANOPILOPOMA Ayres.

Anoplopoma Ayres, Proc. Calif. Acad. Nat. Sci., II, 1859, 27 (*A. merlangus* Ayres=*Gadus fimbria* Pallas).

Scombrocottus Peters, Monatsber. Akad. Wiss. Berlin, 1872, 569 (*S. salmoneus* Peters=*Gadus fimbria* Pallas).

2917. *Anoplopoma fimbria* (Pallas). Beshow, Coalfish; Skil; Black cod; Sablefish.

Unalaska to San Diego, common northward; a valued food fish in Alaska when it becomes fat.

Gadus fimbria Pallas, Zoogr. Rosso-Asiat., III, 1811, 200, probably Aleutian Islands.

Anoplopoma merlangus Ayres, Proc. Calif. Acad. Nat. Sci., II, 1859, 27, San Francisco market.

Scombrocottus salmoneus Peters, Monatsber. Akad. Wiss. Berlin, 1872, 569, Vancouver Island.

Family 227. ERILEPIDÆ. Fat priests

Genus 1000. ERILEPIS Gill.

Myriolepis Lockington, Proc. U. S. Nat. Mus., III, 1880, 248 (*Myriolepis zonifer* Lockington); name preoccupied in fossil fishes.

Erilepis Gill, Science, Jan. 26, 1894, 54 (*Myriolepis zonifer* Lockington).

Ebisus Jordan and Snyder, Jour. Coll. Sci. Tokyo, XV, 1901, 308 (*E. sagamius* Jordan and Snyder).

2918. *Erilepis zonifer* (Lockington). Aburabozu; Fat priest.

Coast of Japan to Alaska; once taken at Monterey Bay, Calif.

Myriolepis zonifer Lockington, Proc. U. S. Nat. Mus., III, 1880, 248, Monterey.

Ebisus sagamius Jordan and Snyder, Jour. Coll. Sci., Tokyo, XV, 1901, 308, Misaki, Japan.

Family 228. HEXAGRAMMIDÆ. Greenlings

Genus 1001. HEXAGRAMMOS Steller.

Hexagrammos Steller, in Tilesius, Act. Ac. Petrop., II, 1810, 335 (*H. stelleri* Tilesius=*H. asper* Tilesius).

Labrax Pallas, Mém. Acad. Sci. Petersb., II, 1810, 382 (*L. lagocephalus* Pallas), not of Klein nor of Cuvier.

Lebius (Steller MS) Pallas, Zoogr. Rosso-Asiat., III, 1811, 279 (*Labrax superciliosus* Pallas).

Chirus Steller, in Pallas, loc. cit., 279 (*Labrax superciliosus* Pallas).

Octogrammus Bleeker, Versl. Akad. Amsterdam (2), VIII, 1874, 370 ("Labrax octogrammus Schlegel"=*Octogrammus pallasi* Bleeker).

Acantholebius Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 166 (*Chiropsis nebulosus* Girard=*Hexagrammos stelleri* Tilesius); specimen with broken dorsal spines.

Grammatopleurus Gill, loc. cit., XIII, 1861, 166 (*Labrax lagocephalus* Pallas).

2919. *Hexagrammos decagrammus* (Pallas). Rock trout; Boregat; Bodieron North Pacific, from Point Conception to southern Alaska; common south.

Labrax decagrammus Pallas, Mém. Acad. Petersb., II, 1810, 386, pl. 22, fig. 2, Elias Bay.

Chirus guttatus Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 132, San Francisco.

Grystes lineatus Ayres, Proc. Calif. Acad. Nat. Sci., I, 1854, 9, Bay of San Francisco.

Chiropsis constellatus Girard, U. S. Pac. R. R. Surv., X, Pt. 4, Fishes, 1858, 42, San Francisco.

Chirus maculo-seriatus Lockington, Proc. U. S. Nat. Mus., III, 1880, 55, San Francisco.

2920. *Hexagrammos octogrammus* (Pallas). *Alaska greenfish*.
Aleutian Islands, westward to Petropaulski and Robben Island.
Labrax octogrammus Pallas, Zoogr. Rosso-Asiat., III, 1811, 283, Kamchatka and Aleutian Islands; doubtful species.
Chirus ordinatus Cope, Proc. Amer. Phil. Soc., XIII, 1873, 28, Unalaska.
Octogrammus pallas Bleeker, Versl. Akad. Amsterdam, VI, 1870; after Pallas
2921. *Hexagrammos stelleri* Tilesius. *Greenling*.
Kamchatka and Unalaska to San Francisco; abundant in Puget Sound and northward
Hexagrammos stelleri Tilesius, Mém. Acad. St. Petersb., II, 1809, 335, Kamchatka.
Hexagrammos asper Steller in Tilesius, loc. cit., 340, pl. 15, 1810, Kamchatka.
Labrus hexagrammus Pallas, loc. cit., 395, pl. 23, fig. 3, 1810, Kamchatka.
Chiropsis nebulosus Girard, U. S. Pac. R. R. Surv., X, Fishes, 1858, 45, Puget Sound and at Fort Steilacoom.
Chirus trigrammus Cope, Proc. Amer. Phil. Soc., XIII, 1873, 29, Unalaska.
2922. *Hexagrammos superciliosus* (Pallas). *Red rock trout*
Bering Sea to Monterey Bay.
Labrax superciliosus Pallas, Mém. Acad. St. Petersb., II, 1810, 388, Unalaska.
Chirus pictus Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 132, San Francisco; Humboldt Bay.
Chirus balius Cope, Proc. Amer. Phil. Soc., XIII, 1873, 28, Captains Harbor, Unalaska.
Hexagrammus scaber Bean, Proc. U. S. Nat. Mus., IV, 1881, 154, Amchitka, Unalaska.
2923. *Hexagrammos lagocephalus* (Pallas).
Western Bering Sea, Kuril Islands; Alaska; Attu.
Labrax lagocephalus Pallas, Mém. Acad. St. Petersb., II, 1810, 384, Kuril Islands.
- Genus 1002. *PLEUROGRAMMUS* Gill. *Atka mackerels*.
Pleurogrammus Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 166 (*Labrax monopterygius* Pallas).
2924. *Pleurogrammus monopterygius* (Pallas). *Atka mackerel*; *Atka fish*; *Yellowfish*.
Northern Pacific, common about Atka and other Aleutian Islands east to Unalaska.
Labrax monopterygius Pallas, Mém. Acad. Sci. St. Petersburg, II, 1810, 391, Unalaska.

Family 229. OPHIODONTIDÆ. Cultus cods

- Genus 1003. *OPHIODON* Girard.
Ophiodon Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 133 (*Ophiodon elongatus* Girard).
Oplopoma Girard, loc. cit., VIII, 1856, 135 (*Oplopoma pantherina* Girard=*Ophiodon elongatus* Girard; young).
2925. *Ophiodon elongatus* Girard. *Cultus cod*; *Blue cod*; *Buffalo cod*; *Lang*.
Pacific coast from Alaska to Santa Barbara.
Ophiodon elongatus Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 133, San Francisco.
Oplopoma pantherina Girard, loc. cit., VIII, 1856, 135, Cape Flattery, Wash.

Family 230. OXYLEBIIDÆ

- Genus 1004. *OXYLEBIUS* Gill.
Oxylebius Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 277 (*O. pictus* Gill).
2926. *Oxylebius pictus* Gill.
From Monterey northward to Puget Sound; not rare.
Oxylebius pictus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 278, California; no definite locality given.

Family 231. ZANIOLEPIDÆ

Genus 1005. ZANIOLEPIS Girard.

Zaniolepis Girard, Proc. Acad. Nat. Sci. Phila., IX, 1857, 202 (*Z. latipinnus* Girard).

2927. *Zaniolepis latipinnis* Girard.

Coast of California, from San Francisco northward.

Zaniolepis latipinnis Girard, Proc. Acad. Nat. Sci. Phila., IX, 1857, 202, Fort Steilacoom, Puget Sound

Genus 1006. XANTOCLES Jordan.

Xantocles Jordan, Copeia, Oct. 4, 1917, 88 (*Zaniolepis frenatus* Eigenmann).

2928. *Xantocles frenatus* (Eigenmann).

Shore banks of southern California; rare.

Zaniolepis frenatus Eigenmann, West American Scientist, VI, Nov. 9, 1889, 147, Cortez Banks off San Diego.

Family 232. JORDANIIDÆ

Genus 1007. JORDANIA Starks.

Jordania Starks, Proc. Acad. Nat. Sci. Phila., XLVII, 1895, 410 (*J. zonope* Starks).

2929. *Jordania zonope* Starks.

Puget Sound.

Jordania zonope Starks, Proc. Acad. Nat. Sci. Phila., XLVII, 1895, 410, Port Orchard, Puget Sound.

Genus 1008. PARICELINUS Eigenmann and Eigenmann.

Paricelinus Eigenmann and Eigenmann, West Amer. Sci., VI, 1889, 131 (*P. hopliticus* Eigenmann and Eigenmann).

2930. *Paricelinus hopliticus* Eigenmann and Eigenmann.

Cortez Banks, off San Diego.

Paricelinus hopliticus Eigenmann and Eigenmann, West Amer. Sci., VI, Nov. 9, 1889, 131, Cortez Banks.

Genus 1009. ALCIDEA Jordan and Evermann.

Alcidea Jordan and Evermann, Fishes North and Mid. Amer., 1886, 1898 (*Paricelinus thoburni* Gilbert).

2931. *Alcidea thoburni* (Gilbert).

Coast of Oregon.

Paricelinus thoburni Gilbert, Rept. U. S. Fish Com., XIX, 1893, 432, pl. 30, coast of Oregon, in 75 fathoms.

Family 233. ICELIDÆ. Scaled sculpins

Genus 1010. CHITONOTUS Lockington.

Chitonotus Lockington, Proc. U. S. Nat. Mus., IV, 1881, 141 (*C. megacephalus* Lockington = *Artedius pugetensis* Steindachner).

2932. *Chitonotus pugetensis* (Steindachner).

San Francisco to Puget Sound.

Artedius pugetensis Steindachner, Ichth. Beitr., V, 1876, 133, pl. 14, fig. 2, Puget Sound.

Chitonotus megacephalus Lockington, Proc. U. S. Nat. Mus., IV, 1881, 142, off San Francisco.

Genus 1011. TARANDICHTHYS Jordan and Evermann.

Tarandichthys Jordan and Evermann, Proc. Calif. Acad. Sci., 2d ser., VI, 1896, 225 (*Icelinus filamentosus* Gilbert).

2933. *Tarandichthys cavifrons* (Gilbert).

Coast of southern California.

Icelinus cavifrons Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 83, off Santa Barbara Islands, at Albatross stations 2907 and 2945, in 44 and 30 fathoms.

2934. *Tarandichthys filamentosus* (Gilbert).
Coast of southern California; Alaska, off St. Mary's Mission; Hood Canal, Puget Sound.
Icelinus filamentosus Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 85, off Santa Barbara Islands, in 145 and 55 fathoms.
2935. *Tarandichthys tenuis* (Gilbert).
Coast of southern California, Alaska, Fort Rupert and Gulf of Georgia.
Icelinus tenuis Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 86, off Santa Barbara Islands, at *Albatross* stations 2893, 2946, and others, in 45 to 150 fathoms.
- Genus 1012. *ICELINUS* Jordan.
Icelinus Jordan, Cat. Fish. N. Amer., 1885, 110 (*Artedius quadriseriatus* Lockington).
2936. *Icelinus fimbriatus* Gilbert.
Southern California.
Icelinus fimbriatus Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 87, off Santa Barbara Islands, at *Albatross* stations 2893 and 2975, in 145 and 36 fathoms.
2937. *Icelinus oculatus* Gilbert.
Coast of southern California.
Icelinus oculatus Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 87, off Santa Barbara Islands, at *Albatross* station 2935, in 124 fathoms.
2938. *Icelinus burchami* Evermann and Goldsborough
Loring and Behm Canal, Alaska.
Icelinus burchami Evermann and Goldsborough, Bull. U. S. Bur. Fish., XXVI, 1906, 297, fig. 48, off Loring, Alaska.
2939. *Icelinus borealis* Gilbert.
Coast of Alaska, north and south of Aleutian Islands and in Bristol Bay.
Icelinus borealis Gilbert, Rept. U. S. Fish Com., XIX, 1893, 415, pl. 25, Aleutian Islands and Bristol Bay at *Albatross* stations 3213, 3214, and others, in 11 to 121 fathoms.
2940. *Icelinus quadriseriatus* (Lockington).
Off San Francisco, between Point Reyes and Golden Gate.
Artedius quadriseriatus Lockington, Proc. U. S. Nat. Mus., II, 1879, 330, off San Francisco.
2941. *Icelinus strabo* Starks.
Puget Sound at Port Ludlow, Wash.
Icelinus strabo Starks, Proc. Calif. Acad. Sci., 2d. ser., VI, 1896, 551, Port Ludlow, Wash.
2942. *Icelinus fuscescens* Gilbert.
Southern California, Santa Barbara Islands to Monterey.
Icelinus fuscescens Gilbert, Proc. U. S. Nat. Mus., XLVIII, 1915, 340, pl. 17, fig. 9, Santa Barbara Islands, depth 260 to 310 fathoms.
- Genus 1013. *ASTROLYTES* Jordan and Starks.
Astrolytes Jordan and Starks, Proc. Calif. Acad. Sci., 2d ser., V, 1895, 807 (*Artedius fenestralis* Jordan and Gilbert).
2943. *Astrolytes fenestralis* (Jordan and Gilbert).
Puget Sound to Unalaska.
Artedius fenestralis Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 577, Puget Sound.
Artedius asperulus Starks, Proc. Calif. Acad. Sci., 2d ser., VI, 1896, 553, Port Ludlow, Wash.
- Genus 1014. *PARASTROLYTES* Hubbs.
Parastrolytes Hubbs, Occ. Papers, Mus. Zool. Univ. Mich., No. 170, Feb. 20, 1926, 2 (*Artedius notospilotus* Girard).
2944. *Parastrolytes notospilotus* (Girard).
Coast of California from Straits of Fuca southward; abundant at Santa Barbara and Puget Sound.
Artedius notospilotus Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 134, Tomales Bay, Calif.

- Genus 1015. AXYRIAS Starks.**
Axyrias Starks, Proc. Calif. Acad. Sci., 2d ser., VI, 1896, 554 (*Axyrias harringtoni* Starks).
- 2945. *Axyrias harringtoni* Starks.**
 Puget Sound in the vicinity of Port Ludlow, Wash.
Axyrias harringtoni Starks, Proc. Calif. Acad. Sci., 2d ser., VI, 1896, 554, pl. 74, Port Ludlow, Wash.
- Genus 1016. ARTEDIUS Girard.**
Artedius Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 134 (*Scorpenichthys lateralis* Girard).
- 2946. *Artedius lateralis* (Girard).**
 Pacific coast of North America, from Puget Sound to Port Harford, Calif.
Scorpenichthys lateralis Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 145, San Luis Obispo (Port Harford), Calif.
- Genus 1017. PARARTEDIUS Hubbs.**
Parartedius Hubbs, Occ. Papers, Mus. Zool. Univ. Mich., No. 170, Feb. 20, 1926, 3 (*P. hankinsoni* Hubbs).
- 2947. *Parartedius hankinsoni* Hubbs.**
 Tidepool, near end of Point Loma, California.
Parartedius hankinsoni Hubbs, Occ. Papers, Mus. Zool. Univ. Mich., No. 171, Feb. 20, 1926, 4, Tidepool near end of Point Loma, Calif.
- Genus 1018. ALLARTEDIUS Hubbs.**
Allartedius Hubbs, Occ. Papers, Mus. Zool. Univ. Mich., No. 170, Feb. 20, 1926, 8 (*A. corallinus* Hubbs).
- 2948. *Allartedius corallinus* Hubbs.**
 Tidepool on Point Lobos, Monterey Co., Calif. Only one specimen known.
Allartedius corallinus Hubbs, Occ. Papers, Mus. Zool. Univ. Mich., No. 170, Feb. 20, 1926, 8, deep low pool on Point Lobos, Monterey Co., Calif.
- Genus 1019. ARCHAULUS Gilbert and Burke.**
Archaulus Gilbert and Burke, Bull. U. S. Bur. Fish., XXX, 1910, 36 (*A. biseriatus* Gilbert and Burke).
- 2949. *Archaulus biseriatus* Gilbert and Burke.**
 West Bering Sea.
Archaulus biseriatus Gilbert and Burke, Bull. U. S. Bur. Fish., XXX, 1910, 36, Petrel Bank, Bering Sea.
- Genus 1020. ARTEDIELLUS Jordan.**
Artediellus Jordan, Cat. Fish. N. Amer., 1885, 110 (*Cottus uncinatus* Reinhardt).
- 2950. *Artediellus uncinatus* (Reinhardt).**
 Greenland to Labrador.
Cottus uncinatus Reinhardt, K. Dansk. Vid. Selsk. Natur. Math. Afh., VI, 1833; XLIV, 1837, Greenland.
Artediellus atlanticus Jordan and Evermann, Fishes North and Mid. Amer., 1898, 1906, Massachusetts Bay.
- 2951. *Artediellus pacificus* Gilbert.**
 Coast of Alaska; in Bristol Bay, south of Sannak Island, and north of Unalaska.
Artediellus pacificus Gilbert, Rept. U. S. Fish Com., XIX, 1893, 416, Unalaska, Sannak, Bristol Bay, at Albatross station 3216, south of Sannak Island, many other stations in Bristol Bay, and station 3323 north of Unalaska, in 8 to 61 fathoms.
- 2952. *Artediellus clarki* (Evermann and Goldsborough).**
 Bering Sea.
Blennicottus clarki Evermann and Goldsborough, Bull. U. S. Fish Com., XXVI, 1906, 323, fig. 85; Bering Sea. Young, perhaps of *Artediellus pacificus*.

2953. *Artediellus miacanthus* Gilbert and Burke.
Western Bering Sea.
Artediellus miacanthus Gilbert and Burke, Bull. U. S. Bur. Fish., XXX, 1910, 47, fig. 7, east coast of Kamchatka.
2954. *Artediellus camchaticus* Gilbert and Burke.
Western Bering Sea.
Artediellus camchaticus Gilbert and Burke, Bull. U. S. Bur. Fish., XXX, 1910, 46, fig. 6, Avatcha Bay, east coast of Kamchatka.
- Genus 1021. *RUSCARIUS* Jordan and Starks.
Ruscarius Jordan and Starks, Proc. Calif. Acad. Sci., 2d series, V, 1895, 805 (*Ruscarius meanyi* Jordan and Starks).
2955. *Ruscarius meanyi* Jordan and Starks.
Puget Sound, at Port Orchard near Seattle.
Ruscarius meanyi Jordan and Starks, Proc. Calif. Acad. Sci., 2d series, V, 1895, 805, pl. 80, Port Orchard, Puget Sound.
- Genus 1022. *RUSCARIOPS* Hubbs.
Ruscariops Hubbs, Occ. Papers Mus. Zool. Univ. Mich., No. 170, Feb. 20, 1926, 12 (*R. creaseri* Hubbs).
2956. *Ruscariops creaseri* Hubbs.
Low rock pool at Bird Rock, San Diego County, Calif.
Ruscariops creaseri Hubbs, Occ. Papers Mus. Zool. Univ. Mich., No. 170, Feb. 20, 1926, 12, very low rock pool at Bird Rock, San Diego Co., Calif.
- Genus 1023. *RASTRINUS* Jordan and Evermann.
Rastrinus Jordan and Evermann, Check List, 1895, 437 (*Icelus scutiger* Bean).
2957. *Rastrinus scutiger* (Bean).
South of the Alaskan Peninsula.
Icelus scutiger Bean, Proc. U. S. Nat. Mus., XIII, 1890, 41, Trinity Islands, Alaska, at *Albatross* station 2853, in 159 fathoms.
- Genus 1024. *ICELUS* Krøyer.
Icelus Krøyer, Natur. Hist. Tidsskr., I, 1845, 253 (*Icelus hamatus* Krøyer=*Cottus bicornis* Reinhardt).
2958. *Icelus bicornis* (Reinhardt).
Arctic seas, circumpolar; Spitzbergen to northern Russia, Finland, Alaska, Greenland, Labrador, and Cape Cod.
Cottus bicornis Reinhardt, Vid. Selsk. Natur. og Math. Afh., VIII, 1841, LXXV, Greenland.
Icelus hamatus Krøyer, Nat. Hist. Tidsskr., I, 1845, 253, Belsund in Spitzbergen.
Icelus furciger Malm, Forhandl. Skand. Naturf., 1865, 9 Mote, 410, Bohuslan, Sweden.
2959. *Icelus spiniger* Gilbert.
Coast of Alaska in the vicinity of Unalaska Island and in Bristol Bay.
Icelus spiniger Gilbert, Rept. U. S. Fish Com., XIX, 1893, 412, pl. 24, fig. 1, Bristol Bay and Unalaska, at *Albatross* stations 3216, 3223, and many others, in 17 to 121 fathoms.
2960. *Icelus euryops* Bean.
Bering Sea, off Trinity Islands, Alaska.
Icelus euryops Bean, Proc. U. S. Nat. Mus., XIII, 1890, 41, off Trinity Islands, at *Albatross* station 2853, in 159 fathoms.
2961. *Icelus vicinalis* Gilbert.
Bristol Bay, Alaska.
Icelus vicinalis Gilbert, Rept. U. S. Fish Com., XIX, 1893, 413, Bristol Bay at *Albatross* stations 3324, 3330, 3331, and 3332, in 109 to 406 fathoms.
2962. *Icelus canaliculatus* Gilbert.
Bering Sea north of Unalaska.
Icelus canaliculatus Gilbert, Rept. U. S. Fish Com., XIX, 1893, 412, pl. 24, fig. 2, off Unalaska, at *Albatross* station 3329, in 399 fathoms.

2963. *Icelus uncinialis* Gilbert and Burke.
Coast Bering Sea, off Commander Islands.
Icelus uncinialis Gilbert and Burke, Bull. U. S. Bur. Fish., XXX, 1910, 39, fig. 2, Petrel Bank, near Commander Islands.
2964. *Icelus spatula* Gilbert and Burke.
East coast of Kamchatka.
Icelus spatula Gilbert and Burke, Bull. U. S. Bur. Fish., XXX, 1910, 41, fig. 3, Avatcha Bay.
2965. *Icelus australis* (Eigenmann and Eigenmann)
Cortez Banks off San Diego.
Icelinus australis Eigenmann and Eigenmann, West Amer. Sci., 1889, 131, Cortez Banks, Calif.
- Genus 1025. **STELGIDONOTUS** Gilbert and Thompson.
Stelgidonotus Gilbert and Thompson, Proc. U. S. Nat. Mus., XXVIII, 1905, 977 (*S. latifrons* Gilbert and Thompson).
2966. *Stelgidonotus latifrons* Gilbert and Thompson.
Puget Sound region, Admiralty Head, Friday Harbor.
Stelgidonotus latifrons Gilbert and Thompson, Proc. U. S. Nat. Mus., XXVIII, 1905, 977, Friday Harbor, Wash.
- Genus 1026. **RADULINUS** Gilbert.
Radulinus Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 88 (*R. asprellus* Gilbert).
2967. *Radulinus boleoides* Gilbert.
Off Santa Catalina Island in shallow water.
Radulinus boleoides Gilbert, Report U. S. Fish Com., XXIV, 1898, 26, pl. 1, and in Jordan and Evermann, Fishes North and Mid. Amer., II, 1898, 1919, Santa Catalina Island, Calif.
2968. *Radulinus asprellus* Gilbert.
Coast of Oregon and Washington, and in Puget Sound.
Radulinus asprellus Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 88, off Oregon and Washington, at Albatross stations 3046, 3057, and others, in 43 to 77 fathoms.
- Genus 1027. **STELGISTROPS** Hubbs.
Stelgistrops Hubbs, Occ. Papers, Mus. Zool. Univ. Mich. No. 170, Feb. 20, 1926, 8 (*Stelgistrum beringianum* Gilbert and Burke).
2969. *Stelgistrops beringiana* (Gilbert and Burke).
South Bering Sea.
Stelgistrum beringianum Gilbert and Burke, Bull. U. S. Bur. Fish., XXX, 1910, 52, fig. 9, Petrel Bank, Aleutian Islands.
- Genus 1028. **THYRISCUS** Gilbert and Burke.
Thyriscus Gilbert and Burke, Bull. U. S. Bur. Fish., XXX, 1910, 43 (*T. anoplus* Gilbert and Burke).
2970. *Thyriscus anoplus* Gilbert and Burke.
Bering Sea.
Thyriscus anoplus Gilbert and Burke, Bull. U. S. Bur. Fish., XXX, 1910, 43, fig. 4, Attu Island.
- Genus 1029. **TRIGLOPS** Reinhardt.
Triglops Reinhardt, Vid. Selsk. Natur. Math. Afh., V, 1832, LII (*T. pingeli* Reinhardt).
2971. *Triglops pingeli* Reinhardt.
North Atlantic, from Spitzbergen and western Norway to Greenland.
Triglops pingeli Reinhardt, Vid. Selsk. Natur., V, 1832, LII, Greenland.
Triglops pleurostictus Cope, Proc. Acad. Nat. Sci. Phila., XVII, 1865, 81, Godhaven, Greenland.
2972. *Triglops ommatistius* Gilbert.
North Atlantic coast of North America, Newfoundland to Cape Ann.
Triglops ommatistius Gilbert, Proc. U. S. Nat. Mus., XLIV, 1913, 465, Gloucester, Mass.; heretofore wrongly called *Triglops pingeli*, which is mainly a European species.

2973. *Triglops terræ-novæ* Gilbert.
Coast of Newfoundland.
Triglops ommatistius terræ-novæ Gilbert, Proc. U. S. Nat. Mus., XLIV, 1913, 467, off Newfoundland, in 39 fathoms.
2974. *Triglops metopias* Gilbert and Burke.
West Bering Sea.
Triglops metopias Gilbert and Burke, Bull. U. S. Bur. Fish., XXX, 1910, 50, fig. 8, Petrel Bank, Bering Sea.
2975. *Triglops beani* Gilbert.
Alaska, both north and south of the Aleutian Islands and in Bristol Bay.
Triglops beani Gilbert, Rept. U. S. Fish Com., XIX, 1893, 426, pl. 28, upper fig., Aleutian Islands and Bristol Bay, at *Albatross* stations 3214, 3217, and many others, in $7\frac{1}{4}$ to 42 fathoms.
2976. *Triglops scepticus* Gilbert
Aleutian Islands, south of Sannak and north of Unalaska Island.
Triglops scepticus Gilbert, Rept. U. S. Fish Com., XIX, 1893, 428, pl. 28, lower fig., Aleutian Islands, at *Albatross* stations 3215, 3222, and others, in 43 to 138 fathoms.
- Genus 1030. **PRIONISTIUS** Bean.
Prionistius Bean, Proc. U. S. Nat. Mus., VI, 1883, 355 (*P. macellus* Bean).
2977. *Prionistius macellus* Bean.
British Columbia, in Carter Bay.
Prionistius macellus Bean, Proc. U. S. Nat. Mus., VI, 1883, 355, Carter Bay, British Columbia.
- Genus 1031. **ELANURA** Gilbert.
Elanura Gilbert, Rept. U. S. Fish Com., XIX, 1893, 429 (*E. forficata* Gilbert).
2978. *Elanura forficata* Gilbert
Aleutian Islands, south of Sannak and north of Unimak Island.
Elanura forficata Gilbert, Rept. U. S. Fish Com., XIX, 1893, 430, pl. 30, fig. 1, Aleutian Islands, at *Albatross* stations 3213, 3214, and 3222, in 33 to 50 fathoms.
- Genus 1032. **STERNIAS** Jordan and Evermann.
Sternias Jordan and Evermann, Fishes North and Mid. Amer., 1898, 1926 (*Triglops xenostethus* Gilbert).
2979. *Sternias xenostethus* (Gilbert).
Bering Sea, north to Unalaska.
Triglops xenostethus Gilbert, Rept. U. S. Fish Com., XIX, 1893, 429, pl. 29, two figures, north of Unalaska, at *Albatross* station 3230, in 34 fathoms.
- Genus 1033. **PTERYGIOCOTTUS** Bean and Weed.
Pterygiocottus Bean and Weed, Trans. Roy. Soc. Canada, XII, 1920, 73 (*Pterygiocottus macouni* Bean and Weed).
2980. *Pterygiocottus macouni* Bean and Weed.
Vancouver Island.
Pterygiocottus macouni Bean and Weed, Trans. Roy. Soc. Canada, XIII, 1920, 73, Vancouver Island.
- Genus 1034. **MELLETERES** Bean.
Melletes Bean, Proc. U. S. Nat. Mus., II, 1879, 354 (*M. papilio* Bean).
2981. *Melletes papilio* Bean.
Aleutian Islands.
Melletes papilio Bean, Proc. U. S. Nat. Mus., II, 1879, 354, St. Paul Island, Alaska.
- Genus 1035. **HEMILEPIDOTUS** Cuvier.
Hemilepidotus Cuvier, Règne Animal, ed. 2, II, 1829, 165 (*Cottus hemilepidotus* Tilesius).
Temnistia Richardson, Fauna Bor.-Amer., III, 1831, 59 (*Blepsias ventriosus* Eschscholtz = *Cottus hemilepidotus* Tilesius).

2982. *Hemilepidotus hemilepidotus* (Tilesius). *Red sculpin*.
Kamchatka to San Francisco; not common in Bering Sea; abundant from Sitka to Puget Sound.
? *Cottus hemilepidotus* Tilesius, Mém. Acad. Petersb., III, 1810, 262, Sea of Okhotsk.
Cottus trachurus Pallas, Zoogr. Ross.-Asiat., III, 1811, 138, Kuril Islands
Hemilepidotus tilesii Cuvier and Valenciennes, Hist. Nat. Poiss., IV, 1829, 203 (276), pl. 85, after Tilesius and Pallas.
? *Blepsias ventricosus* Eschscholtz, Zool. Atlas, 3d Heft, 1829, 14, t. 13, Norfolk Sound and Sitka.
Hemilepidotus gibbsii Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 13, no definite locality; Northwest boundary survey.
2983. *Hemilepidotus jordani* Bean. *Irish Lord; Yellow sculpin*.
Alaska; Unalaska.
Hemilepidotus jordani Bean, Proc. U. S. Nat. Mus., IV, 1881, 153, Unalaska
2984. *Hemilepidotus zapus* Gilbert and Burke.
Bering Sea.
Hemilepidotus zapus Gilbert and Burke, Bull. U. S. Bur. Fish., XXX, 1910, 54, fig. 10, Attu Island.
- Genus 1036. *CALYCILEPIDOTUS* Ayres.
Calycilepidotus Ayres, Proc. Calif. Acad. Nat. Sci., ed. 2, I, 1855, 81 (76) (*C. spinosus* Ayres).
2985. *Calycilepidotus spinosus* Ayres.
Coast of California; known only from about Monterey and San Francisco.
Calycilepidotus spinosus Ayres, Proc. Calif. Acad. Nat. Sci., ed. 2, I, 1855, 81 (76), San Francisco.
- Genus 1037. *ENOPHRYS* Swainson.
Enophris Swainson, Class. Fishes, II, 1839, 271 (*Cottus claviger* Cuvier and Valenciennes).
2986. *Enophris claviger* (Cuvier and Valenciennes).
Bering Sea.
Cottus claviger Cuvier and Valenciennes, Hist. Nat. Poiss., IV, 1829, 143 (195), pl. 79, Kamchatka.
Cottus elegans Gray, in Cuvier and Valenciennes, loc. cit., 143 (195), same type.
- Genus 1038. *ASPICOTTUS* Girard.
Aspicottus Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 130 (*A. bison* Girard)
Clypeocottus Ayres, Proc. Calif. Acad. Nat. Sci., I, 1854, 12 (*C. robustus* Ayres = *Aspicottus bison* Girard).
2987. *Aspicottus bison* Girard. *Buffalo sculpin*.
San Francisco to Alaska; abundant about Puget Sound.
Aspicottus bison Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 130, San Francisco.
Clypeocottus robustus Ayres, Proc. Calif. Acad. Nat. Sci., I, 1854, 11, San Francisco.
2988. *Aspicottus taurinus* (Gilbert).
Monterey Bay.
Enophris taurinus Gilbert, Proc. U. S. Nat. Mus., XLVII, 1915, 135, Monterey Bay.
- Genus 1039. *CERATOCOTTUS* Gill.
Ceratocottus Gill, Proc. Acad. Nat. Sci. Phila., XI, 1859, 165 (*Cottus diceraus* Pallas).
2989. *Ceratocottus diceraus* (Pallas).
Alaska and Kamchatka.
Cottus diceraus Pallas, Nov. Act. Petropol., 1783, 354, pl. 10, fig. 7, Petropaulski, Kamchatka.
Synanceia cervus Tilesius, Mém. Acad. Petersb., III, 1811, 278, pl. 13, Petropaulski.
Cottus stelleri Bloch and Schneider, Syst. Ichth., 1801, 63, after Steller.

2990. *Ceratocottus lucasi* Jordan and Gilbert.

Bering Sea.

Ceratocottus lucasi Jordan and Gilbert, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 1940, St. Paul Island, Bering Sea.**Family 234. BLEPSIIDÆ****Genus 1040. HISTIOCOTTUS Gill.***Peropus* Lay and Bennett, Beechey's Voy., Zool., Fish., 1839, 50 (*Blepsias bilobus* Cuvier and Valenciennes); name preoccupied.*Histiocottus* Gill, Proc. U. S. Nat. Mus., XI, 1888, 573 (*Blepsias bilobus* Cuvier and Valenciennes).**2991. *Histiocottus bilobus* (Cuvier and Valenciennes).**

Coast of Alaska and Kamchatka.

Blepsias bilobus Cuvier and Valenciennes, Hist. Nat. Poiss., IV, 1829, 279 (379), no locality, somewhere off Kamchatka.**Genus 1041. BLEPSIAS Cuvier.***Blepsias* Cuvier, Règne Anim., ed. 2, II, 1829, 167 (*Trachinus cirrhosus* Pallas).**2992. *Blepsias cirrhosus* (Pallas). *Nee-kao-kaiung*.**

Alaska to San Francisco; common at Unalaska, but not often south of Puget Sound.

Trachinus cirrhosus Pallas, Zoogr. Rosso-Asiat., III, 1811, 237, Bering Sea.*Blepsia trilobus* Cuvier and Valenciennes, Hist. Nat. Poiss., IV, 1829, 276 (375); same types.**Genus 1042. NAUTICHTHYS Girard.***Nautichthys* Girard, Pac. R. R. Surv., X, pt. 4, Fishes, 1858, 74 (*Blepsias oculoasciatus* Girard).*Nautiscus*¹² Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2019 (*Nautichthys pribilovius* Jordan and Gilbert).**Subgenus NAUTICHTHYS Girard.****2993 *Nautichthys oculoasciatus* (Girard).**

Pacific coast, Alaska to Monterey, chiefly northward; common in Bristol Bay and about Unalaska.

Blepsias oculoasciatus Girard, Proc. Acad. Nat. Sci. Phila., IX, 1857, 202, Fort Steilacoom, Wash.**Subgenus NAUTISCUS Jordan and Gilbert.****2994. *Nautichthys pribilovius* (Jordan and Gilbert).**

Bering Sea, Alaska.

Nautiscus pribilovius Jordan and Gilbert, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2020, off St. George Island, Bering Sea.**Family 235. SCORPÆNICHTHYIDÆ. Cabezones****Genus 1043. SCORPÆNICHTHYS Girard.***Scorpænichthys* Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 131 (*Hemitripterus marmoratus* Ayres).**2995 *Scorpænichthys marmoratus* (Ayres). *Cabezon*.**

Pacific coast of America from Puget Sound to San Diego.

Hemitripterus marmoratus Ayres, Proc. Calif. Acad. Nat. Sci., I, 1854, 4, San Francisco.¹² The genus *Nautiscus* is now regarded as scarcely distinct from *Nautichthys*.

Family 236. COTTIDÆ. Scaleless sculpins

Genus 1044. COTTUS⁷³ Linnæus. *Miller's thumbs*.

Cottus Linnæus, Syst. Nat., Ed. X, 1758, 264 (*C. gobio* Linnæus).

Pegedictis Rafinesque, Ichth. Ohiensis, 1820, 85 (*P. ictalops* Rafinesque = ?*Cottus bairdi* Girard, apparently also confused with the darter *Catnotus flabellaris*).

Uranidea DeKay, New York Fauna: Fishes, 1842, 61 (*U. quiescens* DeKay = *Cottus gracilis* Heckel).

Cottopsis Girard, Proc. Bost. Soc. Nat. Hist., III, 1850, 303 (*Cottus asper* Richardson).

Potamocottus Gill, loc. cit., VIII, 1861, 40 (*P. carolinæ* Gill).

Tauridea Jordan and Rice, in Jordan, Man. Vert., Ed. II, 1878, 255 (*Cottopsis ricei* Nelson).

2996. *Cottus gulosus* (Girard).

Streams of the Coast Ranges in California; Columbia, Klamath, and Sacramento River regions; Alaska; Loring and Boca de Quadra.

Cottopsis gulosus Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 120, San Mateo Creek and San Joaquin River, Calif.

Cottopsis parvus Girard, loc. cit., 1854, 144, Monterey, Presidio, Fort Reading, Petaluma.

Uranidea semiscabra centropleura Eigenmann and Eigenmann, West Amer. Scientist, VI, No. 49, 1889, 149, Allen Springs, Lake Co., Calif.

Subgenus COTTOPSIS Girard.

2997. *Cottus asper* Richardson. *Prickly bullhead*.

Streams of the Cascade Range, southeastern Alaska to Oregon; south to Sacramento River.

Cottus asper Richardson, Fauna Bor.-Amer., Fish., 1836, 295, Columbia River at Fort Vancouver.

Trachidermis richardsoni Heckel, Ann. Wiener Mus., II, 1840, 162, Columbia River.

2998. *Cottus evermanni* Gilbert.

Lost River, Oreg.

Cottus evermanni Gilbert, Bull. U. S. Fish Com., XVII, 1897, 11, with figure, Lost River, Lostine, Oreg.

2999. *Cottus rhothea* (Rosa Smith).

Hangman Creek, Tekoa, Washington, and elsewhere in Columbia River Basin

Uranidea rhothea Rosa Smith, Proc. U. S. Nat. Mus., V, 1882, 347, Spokane Falls, Wash.

3000. *Cottus shasta* Jordan and Starks.

Upper Sacramento Basin, about Mount Shasta.

Cottus shasta Jordan and Starks, Proc. Calif. Acad. Sci. 2d ser., VI, 1896, 224, McCloud River, Baird, Shasta County, Calif.

3001. *Cottus punctulatus* (Gill).

Headwaters of Green River, Wyo.; Silver Creek, Harney County, Oreg.

Potamocottus punctulatus Gill, Proc. Bost. Soc. Nat. Hist., VIII, 1861, 40, Bridger Pass, Wyo.

⁷³ In every cold stream of northern Europe, northern Asia, and northern America species of this genus abound, lurking on the bottom and devouring the eggs of trout which inhabit the same waters. The species are all differentiated and like those of trout subject to much individual variation. Those of the United States and Canada are not yet well known and the number of species has probably been unduly expanded. Efforts to subdivide the group have not been very successful and we place all the American forms in a single genus, *Cottus*. Western species, allies of *Cottus asper*, termed *Cottopsis*, are in general larger in size, more prickly, with well-developed palatine teeth and the ventral rays 1, 4. Those of the middle west allied to *Cottus bairdi*, called *Potamocottus*, show similar characters but are for the most part smaller and smoother, the colors more mottled. Rafinesque's *Pegedictis ictalops*, the "Cat's-eye Spring fish," seems to us a *Cottus* described carelessly or more likely from memory. In New England and south to Pennsylvania the allies of *Cottus gracilis* called *Uranidea* are small, smooth, without palatine teeth and the ventral rays 1, 3. But all these traits are subject to intergrading. A few species in deeper waters in Lake Michigan and Canada, allies of *Cottus ricei* called *Tauridea*, are more or less rough and have the preopercular spine larger, hooked and somewhat spiral, otherwise much as in *Cottopsis*.

3002. *Cottus semiscaber* (Cope). *Rocky Mountain bullhead*.
Rocky Mountain region in clear streams on both slopes; abundant in Colorado, northern New Mexico, Wyoming, Montana, Idaho, Utah, eastern Washington, and Oregon.
Collopsis semiscaber Cope, Hayden Surv. Mont., 1871, 476, Fort Hall, Idaho.
Uranidea wheeleri Cope, Proc. Amer. Phil. Soc. Phila., XIV, 1874, 138, Beaver River, Utah.
3003. *Cottus asperimus* Rutter.
California; Sacramento-San Joaquin Basin; Fall River
Cottus asperima Rutter, Bull. U. S. Bur. Fish., XXVII, 1907, 144, fig 3, Fall River, Calif.
3004. *Cottus beldingii* Eigenmann and Eigenmann.
Streams of Columbia River Basin, south to Lake Lahontan; abundant east of the Cascades and in Lake Tahoe; fossil in Lahontan Basin, in Pleistocene deposits.
Cottus beldingii Eigenmann and Eigenmann, Amer. Nat., XXV, 1891, 1132, Lake Tahoe
3005. *Cottus annæ* Jordan and Starks.
Eagle River, a tributary of Grand River, Colo., Colorado River Basin.
Cottus annæ Jordan and Starks, Proc. Calif. Acad. Sci., 2d ser., VI, 1896, 223, Pl. XXVII, Eagle River at Gypsum, Colo.
3006. *Cottus philonips* Eigenmann and Eigenmann.
Columbia River Basin at Field, British Columbia, and in Idaho.
Cottus philonips Eigenmann and Eigenmann, Amer. Nat., XXVI, 1892, 963, Kicking Horse River, Field, British Columbia.
3007. *Cottus klamathensis* Gilbert.
Klamath Lakes, Oreg.
Cottus klamathensis Gilbert, Bull. U. S. Fish. Com., XVII, 1897, 10, figure, Upper Klamath Lake, Oreg.
3008. *Cottus macrops* Rutter.
Fall River, Calif.
Cottus macrops Rutter, Bull. U. S. Bur. Fish., XXVII, 1907, 146, fig. 4, Fall River, Calif.
3009. *Cottus perplexus* Gilbert and Evermann.
Skookumchuck and Newaukum Rivers, near Chehalis, Wash.
Cottus perplexus Gilbert and Evermann, Bull. U. S. Fish. Com., XIV, 1894, 202, pl. 20, fig. 1, Skookumchuck River, near Chehalis, Wash.
3010. *Cottus princeps* Gilbert.
Klamath Lakes, Oreg.
Cottus princeps Gilbert, Bull. U. S. Fish. Com., XVII, 1897, 12, figure, Upper Klamath Lake, Oreg.
3011. *Cottus bendirei* (Bean).
Walla Walla, Wash.; Rattlesnake Creek near Camp Harney, Oreg., and Goose Creek near Meadows, Idaho.
Potamocottus bendirei Bean, Proc. U. S. Nat. Mus., IV, 1881, 27, Rattlesnake Creek near Camp Harney, Oreg.
3012. *Cottus greeniei* (Gilbert and Culver).
Snake River Basin, Idaho
Uranidea greeniei Gilbert and Culver, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 1965, Thousand Springs, Snake River, Idaho.
3013. *Cottus marginatus* (Bean).
Tributaries of Walla Walla River, Wash.
Uranidea marginata Bean, Proc. U. S. Nat. Mus., IV, 1881, 26, Walla Walla, Wash.
3014. *Cottus tenuis* (Evermann and Meek).
Klamath Lakes, Oreg.
Uranidea tenuis Evermann and Meek, Bull. U. S. Fish. Com., XVII, 1897, 83, fig. 6, Upper Klamath Lake, Klamath Falls, Oreg.

3015. *Cottus leiopomus* Gilbert and Evermann.
Wood River, Shoshone, Idaho.
Cottus leiopomus Gilbert and Evermann, Bull. U. S. Fish Com., XIV, 1894, 203, pl. 20, fig. 2, Wood River, Shoshone, Idaho.
3016. *Cottus aleuticus* Gilbert.
Unalaska; Departure Bay, Vancouver Island; southward to Monterey in the Coast Range.
Uranidea microstoma Lockington, Proc. U. S. Nat. Mus., III, 1880, 58, St. Paul, Kadiak Island; name preoccupied in *Cottus*.
Cottus aleuticus Gilbert, Rept. U. S. Fish Com., XIX, 1893, 418, streams at Unalaska; also in Departure Bay, Vancouver Island.
3017. *Cottus chamberlaini* Evermann and Goldsborough.
Southeastern Alaska.
Cottus chamberlaini Evermann and Goldsborough, Bull. U. S. Bur. Fish., XXVI, 1906, 308, fig. 66, Loring, Alaska.

Subgenus PEGEDICTIS Rafinesque.

3018. *Cottus icatlops* (Rafinesque.) *Müller's thumb; Mufflejaws; Springfish; Blob; Bullhead.*
Middle and northern States, east of the Dakotas and Nebraska; Lake Superior to the Ohio and Potomac Rivers.
Pegedictis icatlops Rafinesque, Ichth. Ohnensis, 85, supplement, 1820. Falls of the Ohio; perhaps confused with *Catostomus flabellaris*.
Cottus richardsoni Agassiz, Lake Superior, 1850, 300, northern shore of Lake Superior; not *Trachidermis richardsoni* Heckel, also a species of *Cottus*.
Cottus bairdii Girard, Proc. Amer. Assoc. Adv. Sci., II, 1850, 410, Mahoning River, Poland, Ohio.
Cottus wilsoni Girard, Monogr. Cottoids, in Smithsonian. Contrib. to Knowledge, 1850, 42, Pittsburgh, Pa.
Cottus alborus Girard, loc. cit., 46, Fort Gratiot, Lake Huron.
Uranidea spilota Cope, Proc. Acad. Nat. Sci. Phila., XVII, 1865, 82, Grand River at Grand Rapids, Mich.
3019. *Cottus meridionalis* Girard. *Southern miller's thumb; Blob; Mufflejaw*
Cottus meridionalis Girard, Proc. Am. Assn. Adv. Sci., II, 1850, 410. James River, Va.
Potamocottus carolinæ Gill, Proc. Bost. Soc. Nat. Hist., 1861, 40. Carolinas.
Potamocottus zopherus Jordan, Ann. Lyc. Nat. Hist. N. Y., XI, 1876, 320, small tributaries of the Etowah and Oostanaula Rivers near Rome, Ga.

Subgenus URANIDEA DeKay

3020. *Cottus franklini* Agassiz.
Lake Superior and Lake Michigan in deep water.
Cottus franklini Agassiz, Lake Superior, 1850, 303, north and east shores of Lake Superior.
Uranidea hoyi Putnam, in Nelson, Bull. Ill. Lab. Nat. Hist., I, No. 1, 1876, 41, Lake Michigan, in deep water.
Uranidea kumlieni Hoy, in Nelson, loc. cit., 41, Lake Michigan, in deep water.
3021. *Cottus gracilis*⁷⁴ Heckel. *Müller's thumb; Rock cusk; Little stargazer.*
Streams of New England, Maine to New York; recorded from tributaries of the Connecticut, Lake Champlain, Hudson, Delaware, and Susquehanna.
Cottus gracilis Heckel, Ann. Wien Mus., II, 1837, 148, New York.
Cottus viscosus Haldeman, Suppl. Mongr. Linnæa, 1840, 3, Susquehanna River.
Uranidea quiescens DeKay, New York Fauna: Fishes, 1842, 61, Lake Pleasant, Adirondack region.
Cottus gobioides Girard, Proc. Amer. Assoc. Adv. Sci., II, 1850, 411, Lamville River, Johnson, Vt.
Cottus boeoides Girard, loc. cit., II, 411, Windsor, Vt.

⁷⁴ May not be distinct from the northern *C. cognatus*.

- Cottus copei* Abbott, Proc. Acad. Nat. Sci. Phila., XII, 1860, 326, probably New Jersey.
Cottus gracilis cayuga Meek, Ann. New York Acad. Sci., IV, 1888, 315, Cayuga Lake, N. Y.
3022. *Cottus formosus* Girard.
 Lake Ontario, in deep water.
Cottus formosus Girard, Monogr. Cott., in Smithson. Contrib., III, 1850, 58, Lake Ontario, off Oswego, in stomach of *Lota maculosa*.
 Subgenus TAURIDEA Jordan and Rice.
3023. *Cottus ricei* (Nelson).
 Lake Michigan; Lake Ontario.
Cottopsis ricei Nelson, Bull. Ill. Lab. Nat. Hist., I, 1876, 40, Lake Michigan off Evanston.
Uranidea pollicaris Jordan and Gilbert, Proc. U.S. Nat. Mus., V, 1882, 222, Lake Michigan, off Racine, Wis.
3024. *Cottus onychus* Eigenmann and Eigenmann.
 Saskatchewan Basin.
Cottus onychus Eigenmann and Eigenmann, Am. Nat., XXVI, November, 1892, 963, Bow River at Calgary, a tributary of the South Saskatchewan, Alberta Territory.
3025. *Cottus cognatus* Richardson. *Northern miller's thumb*.
 Northern United States and northward, through Canada.
Cottus cognatus Richardson, Fauna Bor.-Amer., III, 1836, 40, Great Bear Lake.
- Genus 1045. ACANTHOCOTTUS Girard. *Daddy sculpin*
Acanthocottus Girard, Proc. Bost. Soc. Nat. Hist., III, 1849, 185 (*Cottus granlandicus* Cuvier and Valenciennes).
3026. *Acanthocottus mitchilli*⁷⁵ (DeKay).
 Coast of southern New England and New York.
Cottus mitchilli DeKay, in Cuvier and Valenciennes, Hist. Nat. Poiss., IV, 1829, 188, New York; after *Cottus scorpio* Mitchill.
3027. *Acanthocottus bubalis* (Euphrasen). *Fatherlasher, Lucky proach*.
 Barbados.
Cottus bubalis Euphrasen, Kong. Vet. Nya Abhandl., VII, 1786, 65, taf. 3, fig. 8, 1885, Barbados.
Cottus maculatus Fischer, Jahrb. Wissensch. Aust. Hamburg, II, 1885, 78, taf. 2, fig. 8, Barbados.
3028. *Acanthocottus æneus* (Mitchill). *Grubby; Brassy sculpin; Pigmy sculpin*.
 Coast of southern New England and New York.
Cottus æneus Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 380, New York.
Cottus anceps Sauvage, Nouv. Archiv. Mus. Paris, I, 1878, 145, pl. 1, fig. 13, New York.
 ?*Cottus nigricans* LeSueur, in Vaillant, Bull. Soc. Philom., serie 8, tome VIII, No. 1, 1895, 12, no locality.
3029. *Acanthocottus octodecemspinosus* (Mitchill). *Long-spined sculpin; Common sculpin; Bullhead; Eighteen-spined sculpin; Hacklehead*.
 Atlantic coast south to Virginia; common northward.
Cottus octodecem-spinosus Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 380, New York.
3030. *Acanthocottus scorpius* (Linnæus). *European sculpin; Ulke*.
 Northern Europe and Arctic regions, not common on our coasts; recorded by Doctor Lütken from the Baltic, Finland, Spitzbergen, Nova Zembla, coasts of England and northern Asia; also recorded from Eastport, Me.
Cottus scorpius Linnæus, Syst. Nat., Ed. X, 1758, 265, in Atlantic Ocean off Europe.
3031. *Acanthocottus scorpioides* (Fabricius). *Arctic sculpin*.
 Arctic regions of America, Greenland to Siberia.
Cottus scorpioides Fabricius, Fauna Grœnl., 1780, 157, Greenland.
Cottus pachypus Günther, Cat., II, 1860, 161, Port Leopold

⁷⁵ Differentiated by Nichols, Copeia, No. 31, 40, 1916

- 3032. *Acanthocottus grœnlandicus* (Cuvier and Valenciennes). *Daddy sculpin*.**
 New York to Greenland; according to Fabricius it is abundant in all the bays and inlets of Greenland.
Cottus grœnlandicus Cuvier and Valenciennes, Hist. Nat. Poiss., IV, 1829, 135 (156), no locality given, probably Greenland; after Fabricius.
Cottus porosus Cuvier and Valenciennes, loc. cit., VIII, 1831, 367 (498), Baffins Bay.
Acanthocottus mucosus Ayres, Proc. Calif. Acad. Nat. Sci., I, 1854 (Oct. 9), 12, coast of New England.
Acanthocottus ocellatus Storer, Boston Jour. Nat. Hist., 1850, 253, Labrador.
Cottus glacialis Richardson, in Belcher, Last Arctic Voy. H. M. S. Assistant, App. 3, 1855, 349, pl. 24, Northumberland Sound.
- Genus 1046. MYOXOCEPHALUS (Steller) Tilesius.**
Myoxocephalus Tilesius, Mém. Acad. Sci. Petersb., IV, 1811, 273 (*Myoxocephalus stelleri* Tilesius)
Boreocottus Gill, Proc. Acad. Nat. Sci. Phila., XI, 1859, 166 (*B. axillaris* Gill).
- 3033. *Myoxocephalus polyacanthocephalus* (Pallas). *Great sculpin*; *Kalok*.**
 Alaska to Kamchatka; abundant, Bering Sea to Puget Sound, tide pools of Karluk.
Cottus polyacanthocephalus Pallas, Zoogr. Rosso.-Asiat., III, 1811, 133, Aleutian Islands.
- 3034. *Myoxocephalus jaok* (Cuvier and Valenciennes).**
 Kamchatka.
Cottus jaok Cuvier and Valenciennes, Hist. Nat. Poiss., IV, 1829, 126 (172), Kamchatka.
Cottus humilis Bean, Proc. U. S. Nat. Mus., IV, 1881, 149, Chamisso Island, Bering Straits.
- 3035. *Myoxocephalus verrucosus* (Bean).**
 Plover Bay, Siberia, near Bering Straits; Unalaska; Sitka; Bristol Bay; Kings Island; Grantley Harbor, Port Clarence; Litnik.
Cottus verrucosus Bean, Proc. U. S. Nat. Mus., IV, 1881, 152, Plover Bay, Siberia.
- 3036. *Myoxocephalus axillaris* (Gill).**
 Bering Straits.
Boreocottus axillaris Gill, Proc. Acad. Nat. Sci. Phila., XI, 1859, 166, Bering Straits.
- 3037. *Myoxocephalus stelleri* Tilesius.**
 Western shore of Bering Sea and Okhotsk Sea.
Myoxocephalus stelleri Tilesius, Mém. Acad. Petersb., IV, 1811, 273, with plate, Petropaulski.
Cottus decastrænsis Kner, Denks. Kais. Acad. Wissen., XXIV, 1865, 2, taf. 2, figs. 1, 1a, Decastry Bay, near mouth of the Amur.
 ?*Cottus marmoratus* Cuvier and Valenciennes, Hist. Nat. Poiss., VIII, 1831, 366 (497), Petropaulski.
- 3038. *Myoxocephalus mednius* Bean.**
 Medni Island, Bering Sea.
Myoxocephalus mednius Bean, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 1983, Medni Island, Bering Sea.
- 3039. *Myoxocephalus parvulus* Gilbert and Burke.**
 Medni Island, Commander Group.
Myoxocephalus parvulus Gilbert and Burke, Bull. U. S. Bur. Fish., XXX, 1910, 59, Preobazenskoi Bar, Medni (Copper) Island.
- 3040. *Myoxocephalus niger* (Bean). *Black sculpin*.**
 Pribilof Islands
Cottus niger Bean, Proc. U. S. Nat. Mus., IV, 1881, 151, St. Paul Island, Bering Sea.
 ?*Cottus mertensii* Cuvier and Valenciennes, Hist. Nat. Poiss., VIII, 1831, 366 (496), Petropaulski.
- Genus 1047. MEGALOCOTTUS Gill.**
Megalocottus Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 166 (*Cottus platycephalus* Pallas).

3041. *Megalocottus platycephalus* (Pallas).
Kamchatka.
Cottus platycephalus Pallas, Zoogr. Rosso.-Asiat., III, 1811, 135, Kamchatka; after Steller
Cottus tæniopterus Kner, Sitzungsber. Ak. Wiss. Wien, LXIII, 1868, 28, Taf. 14, fig. 10, Decastria Bay, near mouth of Amur River.
3042. *Megalocottus laticeps* (Gilbert).
Eastern shore of Bering Sea
Acanthocottus laticeps Gilbert, Rept. U. S. Fish. Com., XIX, 1893, 422, pls. 26 and 27, Nushagak River and Herendeen Bay, Alaska.
- Genus 1048. **POROCOTTUS** Gill.
Porocottus Gill, Proc. Acad. Nat. Sci. Phila., XI, 1859, 166 (*P. quadrifilis* Gill).
3043. *Porocottus sellaris* (Gilbert).
Bristol Bay, Alaska.
Acanthocottus sellaris Gilbert, Rept. U. S. Fish. Com. XIX, 1893, 419, Bristol Bay, at Albatross stations 3229, 3231, and others, in 5 to 17 fathoms.
3044. *Porocottus quadratus* Bean.
Bering Island.
Porocottus quadratus Bean, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 1998, Bering Island.
3045. *Porocottus polaris* (Sabine).
East side of peninsula of Boothia.
Cottus polaris Sabine, App. Parry's First Voyage. CCXIII, 1824, north Georgia.
3046. *Porocottus quadrifilis* Gill.
Bering Straits.
Porocottus quadrifilis Gill, Proc. Acad. Nat. Sci. Phila., XI, 1859, 166, Bering Straits.
3047. *Porocottus bradfordi* Rutter.
Alaska; rock pools at Karluk.
Porocottus bradfordi Rutter, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2862, Karluk.
- Genus 1049. **MALACOCOTTUS** Bean.
Malacocottus Bean, Proc. U. S. Nat. Mus., XIII, 1890, 42 (*M. zonurus* Bean).
3048. *Malacocottus zonurus* Bean.
Coast of Alaska off Trinity Islands.
Malacocottus zonurus Bean, Proc. U. S. Nat. Mus., XIII, 1890, 43, off Trinity Islands, Alaska, 56° N., 154° W., at Albatross station 2853, in 159 fathoms.
3049. *Malacocottus kincaidii* Gilbert and Thompson.
Puget Sound.
Malacocottus kincaidii Gilbert and Thompson, Proc. U. S. Nat. Mus., XXVIII, 1905, 979, fig. 2, Brinnon, Hood's Canal, Wash.
- Genus 1050. **ONCOCOTTUS** Gill.
Oncocottus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 13 (*Cottus quadricornis* Linnæus).
3050. *Oncocottus quadricornis* (Linnæus).
Arctic America to Baltic Sea, chiefly northward; abundant in eastern Baltic and in Lakes Ladoga and Onega; north to White Sea and Nova Zembla; rare in England and eastern Greenland; unknown in western Greenland.
Cottus quadricornis Linnæus, Syst. Nat., ed. X, 1758, 264, Baltic Sea.
3051. *Oncocottus hexacornis* (Richardson).
Arctic Sea about Hershel Island.
Cottus hexacornis Richardson, Franklin's Journal, 1823, 726, mouth of Tree River near Coppermine River.
Acanthocottus labradoricus Girard, Bost. Jour. Nat. Hist., VI, 1850, 247, pl. 7, fig. 3, coast of Labrador.

3052. *Oncocottus gilberti* Fowler.
Point Barrow, Alaska; Arctic Sea.
Oncocottus hexacornis gilberti Fowler, Proc. Acad. Nat. Sci. Phila.,
LVII, 1905, 366, figs. 2, 3, 4, and 5, Point Barrow, Alaska.
- Genus 1051. **TRIGLOPSIS** Girard.
Triglopsis Girard, Proc. Bost. Soc. Nat. Hist., IV, 1851, 16 (*T. thompsoni*
Girard).
3053. *Triglopsis thompsoni* Girard. *Lake sculpin*.
Deep waters of Lake Ontario
Triglopsis thompsoni Girard, Proc. Bost. Soc. Nat. Hist., IV, 1851, 19,
Lake Ontario off Oswego, N. Y.
3054. *Triglopsis stimpsoni* Hoy.
Lake Michigan in deep water.
Triglopsis stimpsoni Hoy, Trans. Wis. Acad. Sci., 1872, 99, Lake Mich-
igan, off Chicago.
3055. *Triglopsis ontariensis* Jordan and Thompson.
Deep waters of Lake Ontario
Triglopsis ontariensis Jordan and Thompson, Proc. U. S. Nat. Mus.,
XXXVIII, 1911, 75, Lake Ontario, off Toronto
- Genus 1052. **GYMNOCANTHUS** Swainson.
Gymnocanthus Swainson, Class. Fishes, Amphib., etc., II, 1839, 271
(*Cottus ventralis* Cuvier and Valenciennes = *Cottus pistilliger* Pallas).
Phobelot Krøyer, Naturh. Tidskr., I, 1844, 263 (*Cottus tricuspis* Rein-
hardt).
Elaphocottus Sauvage, Nouv. Arch. Mus. Paris (2), 1, 1878, 142
(*Cottus pistilliger* Pallas).
Gymnacanthus of many authors. Corrected spelling.
3056. *Gymnocanthus pistilliger* (Pallas).
Coasts of Alaska; taken abundantly in Bristol Bay.
Cottus pistilliger Pallas, Zoogr. Rosso-Asiat., III, 1811, 143, Unalaska
Island.
Cottus ventralis Cuvier and Valenciennes, Hist. Nat. Poiss., IV, 1829,
142 (194), Kamchatka.
Cottus cephaloides Gray, in Cuvier and Valenciennes, Hist. Nat. Poiss.,
IV, 1829, 142 (194), Kamchatka.
3057. *Gymnocanthus tricuspis* (Reinhardt)
Arctic seas, south to Norway and Labrador; not very common on our
coasts.
Cottus tricuspis Reinhardt, Vidensk. Selsk. Nat. Math., V, 1832, LII,
Greenland.
Acanthocottus patris Storer, Bost. Jour. Nat. Hist., VI, 1857, 250,
Labrador.
3058. *Gymnocanthus galeatus* (Bean).
Aleutian Islands.
Gymnacanthus galeatus Bean, Proc. U. S. Nat. Mus., IV, 1881, 153,
Unalaska.
- Genus 1053. **CROSSIAS** Jordan and Starks.
Crossias Jordan and Starks, Proc. U. S. Nat. Mus., XXVII, 1904, 296
(*C. allisi* Jordan and Starks).
3059. *Crossias albomaculatus* Schmidt.
Bering Sea.
Crossias albomaculatus Schmidt, Ann. Mus. Zool. Russ., XX, 1923,
614, fig. 2, Bering Sea.
3060. *Crossias beringi* Soldatov.
Bering Sea.
Crossias beringi Soldatov, Ann. Mus. Zool. Russ., XXI, 1924, 218,
Bering Sea.
3061. *Crossias camtschaticus* Schmidt.
Kamchatka.
Crossias camtschaticus Schmidt, Ann. Mus. Zool. Russ., XX, 1923, 17,
Kamchatka.

Genus 1054. **LEIOCOTTUS** Girard.

Leiocottus Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 133 (*L. hirundo* Girard).

3062. ***Leiocottus hirundo*** Girard.

Coast of southern California, chiefly about the Santa Barbara Islands; extremely local.

Leiocottus hirundo Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 133, San Miguel Island near Santa Barbara, Calif

Genus 1055. **LEPTOCOTTUS** Girard.

Leptocottus Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 130 (*L. armatus* Girard).

3063. ***Leptocottus armatus*** Girard. *Smooth cabezon*.

Pacific coast, from Kodiak to San Diego, abundant northward.

Leptocottus armatus Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 131, Cape Flattery, Fort Steilacoom, Shoalwater Bay, Humboldt Bay, San Francisco, Monterey, San Pedro, Fort Point, San Diego, and Tomales Bay.

Genus 1056. **ASEMATICHTHYS** Gilbert.

Asematichthys Gilbert (*Asematichthys taylori* Gilbert).

3064. ***Asematichthys taylori*** Gilbert.

Vancouver Island.

Asematichthys taylori Gilbert, Departure Bay, Nanaimo, Vancouver Island.

Genus 1057. **CLINOCOTTUS** Gill.

Clinocottus Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 166 (*Oligocottus analis* Girard).

Rusulus Starks and Mann, Univ. Calif. Pub. Zool., VIII, 1911, 14 (*Clinocottus sabarræ* Starks and Mann; young).

3065. ***Clinocottus analis*** (Girard).

Coast of California from Point Conception northward.

Oligocottus analis Girard, Proc. Acad. Nat. Sci. Phila., IX, 1857, 201, Monterey.

Cottus criniger Gunther, Cat., II, 1860, 522, Monterey, Calif.

Rusulus saburræ Starks and Mann, Univ. Calif. Pub. Zool., VIII, 1911, 14, Ballast Point, off mouth of San Diego Bay; young.

3066. ***Clinocottus australis*** Hubbs.

Southern California from Los Angeles County and Santa Catalina Island southward to Todos Santos, San Martin, San Benito, and Guadalupe Islands. Probably varies into *C. analis*, of which it is the southern form.

Clinocottus analis australis Hubbs, Occ. Papers Mus. Zool. Univ. Mich., No. 171, Feb. 20, 1926, 11, Point Loma, San Diego, Calif.

Genus 1058. **OLIGOCOTTUS** Girard.

Oligocottus Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 132 (*O. maculosus* Girard).

3067. ***Oligocottus maculosus*** Girard. *Johnny*.

San Francisco to central Alaska.

Oligocottus maculosus Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 133, Tomales Bay, San Francisco.

Oligocottus borealis Jordan and Snyder, Proc. Calif. Acad. Sci., 2d ser., VI, 1896, 225, Neah Bay, Wash.

Genus 1059. **GREELEYA** ⁷⁸ Jordan.

Eximia Greeley, Bull. U. S. Fish Com., XIX, 1899, 18 (*Eximia rubellio* Greeley); name preoccupied.

Greeleya Jordan, Genera of Fishes, IV, 1920, 493 (*Eximia rubellio* Greeley).

⁷⁸ The separation of this genus from *Oligocottus* has been questioned by Starks and approved by Hubbs.

3068. *Greeleya rubellio* (Greeley).
Monterey Bay, in deep tide pools.
Eximia rubellio Greeley, Bull. U. S. Fish Com., XIX, 1899, 18, fig. 5,
Pacific Grove, Calif.
- Genus 1060. *DIALARCHUS* Greeley.
Dialarchus Greeley, Bull. U. S. Bur. Fish., XIX, 1899, 14 (*Oligocottus*
snyderi Greeley).
3069. *Dialarchus snyderi* (Greeley).
Coast of California, Crescent City to San Luis Obispo, in tide pools.
Oligocottus snyderi Greeley, in Jordan and Evermann, Fishes North and
Mid. Amer., 1898, 2871, Pacific Grove, Calif.
- Genus 1061. *SIGMISTES* Rutter.
Sigmistes Rutter, in Jordan and Evermann, Fishes North and Mid.
Amer., 1898, 2863 (*S. caulias* Rutter).
3070. *Sigmistes caulias* Rutter.
Rock pools at Kodiak Island, Alaska.
Sigmistes caulias Rutter, in Jordan and Evermann, Fishes North and
Mid. Amer., 1898, 2863, rock pools at Karluk, Kodiak Island, Alaska.
- Genus 1062. *OXYCOTTUS* Jordan and Evermann.
Oxycottus Jordan and Evermann, Fishes North and Mid. Amer., 1898,
2015 (*Oligocottus acuticeps* Gilbert).
3071. *Oxycottus acuticeps* (Gilbert).
Alaska south to Cape Flattery, Departure Bay, Vancouver Island,
Kodiak.
Oligocottus acuticeps Gilbert, Rept. U. S. Fish Com., XIX, 1893, 432,
Unalaska.
- Genus 1063. *ALLOCOTTUS* Hubbs.
Allocottus Hubbs, Occ. Papers Mus. Zool. Univ. Mich., No. 171, 1926,
14 (*Oligocottus embryum* Jordan and Starks).
3072. *Allocottus embryum* (Jordan and Starks).
Washington (Neah Bay), Point Lobos, Calif., Karluk and Sitka,
Alaska.
Oligocottus embryum Jordan and Starks, Proc. Calif. Acad. Sci., 2d
ser., V, 1895, 808, pl. 82, Neah Bay, Wash.
- Genus 1064. *RUSCICULUS* Greeley.
Rusciculus Greeley, Bull. U. S. Fish Com., XIX, 1899, 13 (*R. rimensis*
Greeley).
3073. *Rusciculus rimensis* Greeley.
Monterey Bay in tide pools.
Rusciculus rimensis Greeley, Bull. U. S. Fish Com., XIX, 1899, 13,
fig. 3, Point Lobos, near Carmel, Calif.
- Genus 1065. *BLENNICOTTUS* Gill.
Blennicottus Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 166 (*Oligo-*
cottus globiceps Girard).
3074. *Blennicottus globiceps* (Girard).
Pacific coast from Coronado Islands northward to Cape Mendocino.
Oligocottus globiceps Girard, Pac. R. R. Surv., X, pt. 4, Fishes, 1853,
58, South Farallons.
Blennicottus globiceps bryosus Jordan and Starks, Proc. Calif. Acad.
Sci., 2d ser., V, 1895, 808, Neah Bay, Wash.
- Genus 1066. *MONTEREYA* Hubbs.
Montereya Hubbs, Occ. Papers Mus. Zool. Univ. Mich., No. 171,
1926, 16 (*Blennicottus recalvus* Greeley).
3075. *Montereya recalva* (Greeley).
Monterey Bay to San Diego, in tide pools.
Blennicottus recalvus Greeley, Bull. U. S. Fish Com., XIX, 1899
(Dec. 13), 9, fig. 1, Pacific Grove, Calif.
- Genus 1067. *ORTHONOPIAS* Starks and Mann.
Orthonopias Starks and Mann, Univ. Cal. Publ. Zool., VIII, 1911, 11,
(*O. triacis* Starks and Mann).

3076. *Orthonopias triacis* Starks and Mann.
Coast of California, Monterey to San Diego.
Orthonopias triacis Starks and Mann, Univ. Cal. Publ. Zool., VIII,
1911, 11, fig. 1, Cortez Banks off San Diego.
- Genus 1068. *DASYCOTTUS* Bean.
Dasycottus Bean, Proc. U. S. Nat. Mus., XIII, 1890, 42 (*D. setiger*
Bean).
3077. *Dasycottus setiger* Bean.
Puget Sound to Bering Sea.
Dasycottus setiger Bean, Proc. U. S. Nat. Mus., XIII, 1890, 42, off
Sitkalidak Island, Alaska.
- Genus 1069. *ZESTICELUS* Jordan and Evermann.
Zesticelus Jordan and Evermann, Check List, 1895, 443 (*Acanthocottus*
profundorum Gilbert).
3078. *Zesticelus profundorum* (Gilbert).
Bering Sea, north of Unalaska.
Acanthocottus profundorum Gilbert, Rept. U. S. Fish Com., XIX, 1893,
423, pl. 27, upper fig., Bering Sea, north of Unalaska, at Albatross
station 3328, in 399 fathoms.
- Genus 1070. *THECOPTERUS* Smith.
Thecopterus Smith (H. M.), Proc. Biol. Soc. Wash., XVII, 1904, 163
(*Thecopterus aleuticus* Smith).
3079. *Thecopterus aleuticus* Smith.
Bering Sea.
Thecopterus aleuticus Smith, Proc. Biol. Soc. Wash., XVII, 1904, 163,
near Rat Islands, in 270 fathoms.
- Genus 1071. *COTTUNCULUS* Collett.
Cottunculus Collett, Norges Fiske, 1875, 20 (*C. microps* Collett).
3080. *Cottunculus microps* Collett.
Deep waters off coasts of Norway and Rhode Island.
Cottunculus microps Collett, Norges Fiske, 1875, 20, pl. I, figs. 1-3,
Hasvig near Hammerfest, Norway, in 200 fathoms.
3081. *Cottunculus thomsonii* (Günther).
North Atlantic, in deep water.
Cottus thomsoni Günther, Proc. Royal Soc. Edinburgh, XI, 1882, 679,
Faroe Channel, in 535 fathoms.
Cottunculus torvus Goode, Proc. U. S. Nat. Mus., III, 1880, 479, Gulf
Stream off Rhode Island. *A nomen nudum*.
- Genus 1072. *ASCELICHTHYS* Jordan and Gilbert.
Ascelichthys Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 264
(*A. rhodorus* Jordan and Gilbert).
3082. *Ascelichthys rhodorus* Jordan and Gilbert.
Pacific coast from Sitka to Cape Mendocino; abundant in Neah Bay,
Wash.
Ascelichthys rhodorus Jordan and Gilbert, Proc. U. S. Nat. Mus., III,
1880, 264, Waadda Island, Neah Bay, near Cape Flattery.
- Genus 1073. *PSYCHROLUTES* Günther.
Psychrolutes Günther, Cat., III, 1861, 516 (*P. paradoxus* Günther).
3083. *Psychrolutes paradoxus* Günther.
Puget Sound to Kodiak Island.
Psychrolutes paradoxus Günther, Cat., III, 1861, 516, Gulf of Georgia.
Psychrolutes zebra Bean, Proc. U. S. Nat. Mus., XIII, 1890, 43, Aleutian
Islands, between Unga and Nagai Islands, in 110 fathoms.
- Genus 1074. *GILBERTIDIA* Berg.
Gilbertina Jordan and Starks, Proc. Calif. Acad. Sci., 2d ser., V, 1895,
811 (*Gilbertina sigalutes* Jordan and Starks); name preoccupied.
Gilbertidia Berg, Comun del Museo Nac. de Buenos Aires, I, 1898, 42
(*Gilbertina sigalutes* Jordan and Starks).

3084. *Gilbertidia sigalutes* (Jordan and Starks).

Puget Sound.

Gilbertidia sigalutes Jordan and Starks, Proc. Calif. Acad. Sci., 2d ser., V, 1895, 811, pl. 86, Port Orchard, near Seattle.**Family 237. SYNCHIRIDÆ****Genus 1075. SYNCHIRUS Bean.***Synchirus* Bean, Proc. U. S. Nat. Mus., XII, 1889, 641 (*S. gilli* Bean).**3085. *Synchirus gilli* Bean.**

Puget Sound; Barclay Sound, Port Townsend; rare.

Synchirus gilli Bean, Proc. U. S. Nat. Mus., XII, 1889, 642, Barclay Sound, British Columbia.**Family 238. RHAMPHOCOTTIDÆ****Genus 1076. RHAMPHOCOTTUS Günther.***Rhamphocottus* Günther, Ann. Mag. Nat. Hist., Series 4, XIV, 1874, 369 (*R. richardsoni* Günther).**3086. *Rhamphocottus richardsoni* Günther.**

North Pacific, Alaska to Monterey; not infrequent in Puget Sound.

Rhamphocottus richardsoni Günther, Ann. Mag. Nat. Hist., XIV, 1874, 369, Fort Rupert, British America.**Genus 1077. ULCA Jordan and Evermann.***Ulca* Jordan and Evermann, Proc. Calif. Acad. Sci., 2d ser., VI, 1896, 227 (*Hemitripteris marmoratus* Bean).**3087. *Ulca marmorata* (Bean).**

Alaska, Bering Sea and off Sitkalidak Island.

Hemitripteris marmoratus Bean, Proc. U. S. Nat. Mus., XIII, 1890, 43, off Sitkalidak Island.**Family 239. HEMITRIPTERIDÆ. Sea ravens****Genus 1078. HEMITRIPTERUS Cuvier.***Hemitripteris* Cuvier, Règne Anim., ed. 2, II, 1829, 164 (*Scorpena americanus* Gmelin).**3088. *Hemitripteris americanus* (Gmelin). Sea raven; Yellow sculpin.**

Atlantic coast of America from Tortugas to Labrador, chiefly northward.

Scorpena americana Gmelin, Syst. Nat., ed. XIV, 1788, 1220, after "Diable en Crapand de l'Amérique" of Duhamel de Moreau.*Cottus acadian* Walbaum, Arted. Pisc., 1792, 392, 1784, Nova Scotia; after Pennant.*Cottus hispidus* Bloch and Schneider, Syst. Ichth., 1801, 63, New York.*Cottus tripterygius* Bloch and Schneider, Syst. Ichth., 1801, 63, Nova Scotia; after Pennant.**3089. *Hemitripteris villosus* (Pallas).**

Coast of Alaska.

Cottus villosus Pallas, Zoogr. Rosso-Asiat., III, 1811, 129, Cape Kronok, Kamchatka, Itscha River.*Hemitripteris cavifrons* Lockington, Proc. Acad. Nat. Sci. Phila., XXXII, 1880, 233, Kodiak Island, Alaska.**Family 240. AGONIDÆ. Sea poachers; Alligatorfishes****Genus 1079. HYPAGONUS Gill.***Hypsagonus* Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 167 (*Aspidophorus quadricornis* Cuvier and Valenciennes).*Cheiragonus* Herzenstein, Bull. Acad. Sci. St. Petersburg., XIII, 1890, 116 (*Hypsagonus gradimens* Herzenstein = *Aspidophorus quadricornis* Cuvier and Valenciennes).**3090. *Hypsagonus quadricornis* (Cuvier and Valenciennes).**

North Pacific; Kamchatka; Bering Sea and coasts of Alaska south to Bristol Bay and Puget Sound.

Aspidophorus quadricornis Cuvier and Valenciennes, Hist. Nat. Poiss., IV, 1829, 162 (221), Kamchatka.*Hypsagonus gradimens* Herzenstein, Bull. Acad. Int. Sci. St. Petersburg., XIII, 1890, 116, Kamchatka, Sinus Awatcha Bay, Petropaulski.

Genus 1080. STELLERINA Cramer.

Stellerina Cramer, in Jordan and Evermann, Check List, 1895, 447
(*Brachyopsis xyosternus* Jordan and Gilbert).

3091. *Stellerina xyosterna* (Jordan and Gilbert).

Coast of California and Oregon.

Brachyopsis xyosternus Jordan and Gilbert, Proc. U. S. Nat. Mus., III, July 2, 1880, 152, Santa Cruz, Calif.

Agonus annæ Steindachner, Ichth. Beitr., IX, 1880, 254, pl. 6, figs. 1, 1a, Sitzb. K. Acad. Wiss., LXXXII, San Francisco, Calif.

Genus 1081. OCCA Jordan and Evermann.

Occa Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2043
(*Brachyopsis verrucosus* Lockington).

3092. *Occa verrucosa* (Lockington).

Coast of California, south to San Francisco.

Brachyopsis verrucosus Lockington, Proc. U. S. Nat. Mus., III, May 6, 1880, 60, Drake Bay, near San Francisco.

Agonus barkani Steindachner, Ichth. Beitr., IX, 1880, 253, pl. 5, Sitzb. K. Acad. Wiss., LXXXII, San Francisco, Calif.

Genus 1082. OCCELLA Jordan and Hubbs.

Ocella Jordan and Hubbs, Mem. Carnegie Mus., X, No. 2, 1925, 291
(*Agonus dodecaedron* Tilesius).

3093. *Ocella dodecaedron* (Tilesius).

North Pacific, Kamchatka, Bristol Bay, coast of Alaska.

Agonus dodecaedrus Tilesius, Mém. Acad. Petersb., IV, 1810, pl. 13, Kamchatka.

Phalangistes lorincatus Pallas, Zoog. Rosso-Asiat., III, 1811, 114, tab. 19, Kamchatka.

Genus 1083. PALLASINA Cramer.

Pallasina Cramer, Proc. Calif. Acad. Sci., 2d ser., V, 1895, 815 (*Siphonogonus barbata* Steindachner).

3094. *Pallasina barbata* (Steindachner).

Bering Sea on both coasts to Hokkaido, northern Japan.

Siphonogonus barbatus Steindachner, Ichth. Beitr., V, July, 1876, 140, pl. 5, Sitzb. der K. Acad. Wiss., LXXIV, Hakodate, Japan; the locality of Nagasaki also mentioned is impossible.

3095. *Pallasina aix* Starks.

Puget Sound to the Aleutian Islands.

Pallasina aix Starks, Proc. Calif. Acad. Sci., 2d ser., VI, 1896, 558, pl. 75, Puget Sound near Port Ludlow, Wash.

Genus 1084. LEPTAGONUS Gill.

Leptagonus Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 167, 259
(*Aspidophorus spinosissimus* Krøyer = *Aspidophorus decagonus* Cuvier and Valenciennes).

3096. *Leptagonus decagonus* (Bloch and Schneider).

Arctic Ocean, south to Newfoundland and Norway.

Agonus decagonus Bloch and Schneider, Syst. Ichth., I, 1801, 105, pl. 27, erroneously recorded from the East Indies; the type from Greenland.

Aspidophorus spinosissimus Krøyer, Naturhist. Tidsskr., I, 1844, 250, Greenland.

Genus 1085. PODOTHECUS Gill.

Podothecus Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 77, 259 (*P. peristethus* Gill = *Agonus acipenserinus* Tilesius).

Paragonus Gill, loc. cit., 167, 259 (*Agonus acipenserinus* Tilesius).

3097. *Podothecus acipenserinus* (Tilesius). Common alligatorfish.

Kamchatka to Puget Sound.

Agonus acipenserinus Tilesius, Mém. Acad. Petersb., IV, 1811, 422, pl. 11, fig. 163, Unalaska.

Podothecus peristethus Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 259, Simeahmoo, Washington Territory.

3098. *Podothecus gilberti* Collett.
Kamchatka.
Podothecus gilberti Collett, Proc. Zool. Soc. London, 1894, 67, pl. 45, Kamchatka.
- Genus 1086. AGONUS Bloch and Schneider.
Agonus Bloch and Schneider, Syst. Ichth., 1801, 104 (*Cottus cataphractus* Linnæus).
Aspidophorus Lacépède, Hist. Nat. Poiss., III, 1802, 221 (*A. armatus* Lacépède=*Cottus cataphractus* Linnæus).
Phalangistes Pallas, Zoog. Rosso-Asiat., III, 1811, 113 (*Cottus cataphractus* L.).
3099. *Agonus cataphractus* (Linnæus). *Sea poacher*; *Pogge*.
Northern Europe to western Greenland.
Cottus cataphractus Linnæus, Syst. Nat., Ed. X, 1758, 264; after Artedi.
Cottus brodamus Bonnaterre, Encycl. Meth., 1788, 67, northern seas.
Aspidophorus armatus Lacépède, Hist. Nat. Poiss., III, 1802, 222 Atlantic Ocean.
Cataphractus schoneveldii Fleming, British Animals, 1842, 216, Great Britain.
Aspidophorus europæus Cuvier and Valenciennes, Hist. Nat. Poiss., IV, 1829, 147 (201), sandy shores of northern Europe.
- Genus 1087. STELGIS Cramer.
Stelgis Cramer, in Jordan and Starks, Proc. Calif. Acad. Sci., 2d ser., V, 1895, 821 (*Agonus vulsus* Jordan and Gilbert).
3100. *Stelgis vulsus* (Jordan and Gilbert).
Off San Francisco.
Agonus vulsus Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 330, Point Reyes, near San Francisco.
- Genus 1088. AVERRUNCUS Jordan and Starks.
Averruncus Jordan and Starks, Proc. Calif. Acad. Sci., 2d ser., V, 1895, 821, 824 (*A. emmelane* Jordan and Starks).
3101. *Averruncus emmelane* Jordan and Starks.
Puget Sound, near Port Orchard.
Averruncus emmelane Jordan and Starks, Proc. Calif. Acad. Sci., 2d ser., V, 1895, 821, pl. 91, Port Orchard, Puget Sound.
3102. *Averruncus sterletus* Gilbert.
Coast of southern California.
Averruncus sterletus Gilbert, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2072, off Coronado Island.
- Genus 1089. XYSTES Jordan and Starks.
Xystes Jordan and Starks, Proc. Calif. Acad. Sci., 2d ser., V, 1895, 824 (*X. axinophrys* Jordan and Starks).
3103. *Xystes axinophrys* Jordan and Starks.
Puget Sound to Monterey.
Xystes axinophrys Jordan and Starks, Proc. Calif. Acad. Sci., 2d ser., V, 1895, 824, pl. 92, Port Orchard, Admiralty Inlet.
- Genus 1090. SARRITOR Cramer.
Sarritor Cramer, in Jordan and Evermann, Check List, 1895, 448, and Fishes of North and Mid. Amer., 1898, 2072 (*Odontopyxis frenatus* Gilbert).
3104. *Sarritor frenatus* (Gilbert).
Coast of Alaska.
Odontopyxis frenatus Gilbert, Rept. U. S. Fish Com., XIX, 1893, 435; pl. 30, fig. 3. Alaska and Aleutian Islands, at Albatross stations 3219, 3225 and many others, in 16 to 351 fathoms.
3105. *Sarritor leptorhynchus* (Gilbert).
Coast of Alaska.
Odontopyxis leptorhynchus Gilbert, Rept. U. S. Fish Com., XIX, 1893, 437, north and south of the Alaska peninsula, at Albatross stations 3215, 3219, and others in 32 to 59 fathoms.
- Genus 1091. BATHYAGONUS Gilbert.
Bathyagonus Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 89 (*B. nigr-pinnus* Gilbert).

- 3106. *Bathyagonus nigripinnis* Gilbert.**
North Pacific, known from the Aleutian Islands, Bering Sea, south to the coast of Washington
Bathyagonus nigripinnis Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 89, coast of Washington, at *Albatross* station 3073, in 477 fathoms.
- Genus 1092. XENERETMUS Gilbert.**
Xenochirus Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 90 (*X. triacanthus* Gilbert); name preoccupied.
Xeneretmus Gilbert in Jordan, Amer. Nat., 1903, 360 (*Xenochirus triacanthus* Gilbert).
- 3107. *Xeneretmus triacanthus* (Gilbert).**
Pacific coast, from Santa Barbara to Washington.
Xenochirus triacanthus Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 91, off coast of California, Oregon, and Washington, at *Albatross* stations 2893, 2973, and 3059, in 145, 68, and 77 fathoms.
- Genus 1093. ASTEROTHECA Gilbert.**
Asterothea Gilbert, Proc. U. S. Nat. Mus., XLVIII, 1915, 343 (*Xenochirus pentacanthus* Gilbert).
- 3108. *Asterothea pentacantha* (Gilbert).**
Coast of Washington.
Xenochirus pentacanthus Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 91, coast of Washington, at *Albatross* station 3076, in 178 fathoms.
- 3109. *Asterothea alascana* (Gilbert).**
Puget Sound to Bering Sea; coast of Washington.
Xenochirus alascanus Gilbert, Rept. U. S. Fish Com., XIX, 1893, 438, Unimak Pass, Aleutian Islands, at *Albatross* stations 3216, 3219, and others, in 35 to 138 fathoms.
- 3110. *Asterothea infraspinata* (Gilbert).**
Off coast of Washington.
Xeneretmus infraspinatus Gilbert, Proc. Calif. Acad. Sci., 3d ser., III, 1904, 262, pl. 27, off Cape Flattery, Wash., in 77 fathoms.
- Genus 1094. XENOPYXIS Gilbert.**
Xenopyxis Gilbert, Proc. U. S. Nat. Mus., XLIII, 1915, 345 (*Xeneretmus latifrons* Gilbert).
- 3111. *Xenopyxis latifrons* (Gilbert).**
North Pacific coast from Oregon to San Diego.
Xenochirus latifrons Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 92, off coast of Oregon and San Diego, at *Albatross* stations 2898, 2935, etc., in 61 and 158 fathoms.
- 3112. *Xenopyxis leiops* (Gilbert).**
Off southern California.
Xeneretmus leiops Gilbert, Proc. U. S. Nat. Mus., XLVIII, 1915, 348, pl. 17, fig. 10, off Santa Catalina Island.
- 3113. *Xenopyxis ritteri* (Gilbert).**
Off San Diego, Calif.
Xeneretmus ritteri Gilbert, Proc. U. S. Nat. Mus., XLVIII, 1915, 350, pl. 17, fig. 11, off San Diego, in 176 to 181 fathoms.
- Genus 1095. ODONTOPYXIS Lockington.**
Odontopyxis Lockington, Proc. U. S. Nat. Mus., II, 1879, 328 (*O. trispinosus* Lockington).
- 3114. *Odontopyxis trispinosus* Lockington.**
Pacific coast, Alaska to Santa Barbara.
Odontopyxis trispinosus Lockington, Proc. U. S. Nat. Mus., II, 1879, 328, San Francisco.
- Genus 1096. BOTHRAGONUS Gill.**
Bothragonus Gill, in Jordan and Gilbert, Synopsis, 1883, 728 (*Hypsagonus swanii* Steindachner).
- 3115. *Bothragonus swanii* (Steindachner).**
Puget Sound.
Hypsagonus swanii Steindachner, Ichth. Beitr., V, July, 1876, 144, pl. 4, Sitzb. Akad. Wiss. Wien, LXXIV, Port Townsend, Wash.

Family 241. ASPIDOPHOROIDIDÆ

Genus 1097. *ULCINA* Cramer.

Ulcina Cramer, in Jordan and Evermann, Check List, 1895, 449, 1896
(*Aspidophoroides olriki* Lutken)

3116. *Ulcina olriki* (Lutken).

Arctic Ocean; known from west coast of Greenland, Davis Strait, Kara Sea, Barents Bay, and Nova Zembla
Aspidophoroides olriki Lutken, Forelob. Meddel. om Nord Ulkefiske Vidsensk. Meddel. Naturhist. Foren. Kjøb., 1876, 386, 3 figs, Greenland.

3117. *Ulcina güntheri* (Bean).

Coast of Alaska.

Aspidophoroides guntheri Bean, Proc. U. S. Nat. Mus., VIII, 1885, 74, Alaska.

Genus 1098. ASPIDOPHOROIDES Lacépède.

Aspidophoroides Lacépède, Hist. Nat. Poiss., III, 1802, 228 (*A. tranquebar* Lacépède = *Cottus monopterygius* Bloch).

Canthirhynchus Swainson, Nat. Hist. Fish., Amphib., etc., II, 1839, 272 (*A. monopterygius* Bloch).

3118. *Aspidophoroides monopterygius* (Bloch). *Sea poacher*.

Greenland to Cape Cod; accidental to New York

Cottus monopterygius Bloch, Ichth., II, 1786, 156, pl. 178, figs 1, 2, Tranquebar; an error.

Cottus indicus Bonnaterre, Tableau Encycl. Meth., 1788, 68, pl. 87, fig. 367, India; after Bloch

Aspidophoroides tranquebar Lacépède, Hist. Nat. Poiss., III, 1802, 228, Tranquebar

Aspidophoroides grænlædicus Valenciennes, in Cuvier, Règne Anim., ed. 2, II, 1829, pl. 21, fig. 3, Greenland.

3119. *Aspidophoroides bartoni* Gilbert.

Aleutian Islands.

Aspidophoroides bartoni Gilbert, Rept. U. S. Fish Com., XIX, 1893, 434, Aleutian Islands and Bristol Bay, Alaska, at Albatross stations 3213, 3223, and many others, in 11½ to 121 fathoms.

Genus 1099. ANOPLAGONUS Gill.

Anoplagonus Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 259 (*Aspidophoroides inermis* Gunther).

3120. *Anoplagonus inermis* (Gunther).

Coasts of Alaska, south to Vancouver Island.

Aspidophoroides inermis Gunther, Cat., II, 1860, 524, Vancouver Island.

Family 242. CYCLOPTERIDÆ

Genus 1100. CYCLOPTERUS Linnæus.

Cyclopterus Linnæus, Syst. Nat., Ed. X, 1758, 260 (*C. lumpus* Linnæus).

Lumpus Oken, Isis, 1817, 1782; based on "les Lumps" Cuvier (*Cyclopterus lumpus* Linnæus).

3121. *Cyclopterus lumpus* Linnæus. *Lumpfish; Cock and hen paddle; Sea owl; Paddle; Licorne de mer; Lump sucker.*

North Atlantic; rocky shores of both coasts, south to Cape Cod and France.

Cyclopterus lumpus Linnæus, Syst. Nat., Ed. X, 1758, 260, Baltic and North Sea.

Cyclopterus minutus Pallas, Spicilegium, Zool., VII, 1769, 12, Atlantic Ocean.

Cyclopterus pavoninus Shaw, Nat. Hist., IX, 1797, pl. 310.

Cyclopterus pyramidatus Shaw, Gen. Zool., V, 1804, 390.

Cyclopterus canuleus Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 480, New York Harbor

Cyclopterus coronatus Couch, Nat. Hist. Cornwall, in Trans. Linn. Soc. London, XIV, 1823, 47, Cornwall.

Lumpus vulgaris McMurtrie, Eng. ed. Cuvier, Anim. King, 1831; after
C. lumpus Linnæus.
Lumpus anglorum DeKay, N. Y. Fauna: Fishes, IV, 1842, 305, after
 Linnæus.

Genus 1101. **EUMICROTREMUS** Gill.

Eumicrotremus Gill, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 190
 (*Cyclopterus spinosus* Müller).

3122. *Eumicrotremus spinosus* (Müller). *Spinous lumpfish*.
 North Atlantic and Arctic Oceans, south to Maine and Denmark; and
 Eastport, Me.
Cyclopterus spinosus Müller, Prodr. Zool. Dan., IX, 1777, Denmark.

3123. *Eumicrotremus orbis* (Günther).
 Aleutian Islands, south to Vancouver Island.
Cyclopterus orbis Günther, Cat., III, 1861, 158, Vancouver Island.

3124. *Eumicrotremus phrynoides* Burke.
 Bering Sea.
Eumicrotremus phrynoides Burke, Bull. U. S. Bur. Fish., XXX, 1910,
 69, Petrel Bank, Alaska.

Genus 1102. **LETHOTREMUS** Gilbert.

Lethotremus Gilbert, Rept. U. S. Fish Com., XIX, 1893, 449 (*L. muticus*
 Gilbert).

3125. *Lethotremus muticus* Gilbert.
 Aleutian Islands.
Lethotremus muticus Gilbert, Rept. U. S. Fish Com., XIX, 1893, 449,
 pl. 31, Unimak Pass, Alaska, at Albatross stations 3223 and 3258,
 in 56 to 70 fathoms.

3126. *Lethotremus vinolentus* Jordan and Starks.
 Puget Sound, Wash.
Lethotremus vinolentus Jordan and Starks, Proc. Calif. Acad. Sci., 2d
 ser., V, 1895, 827, pl. 94, Puget Sound, near Seattle, Wash.

Genus 1103. **CYCLOPTEROIDES** Garman.

Cyclopteroides Garman, Mem. Mus. Comp. Zool., XIV, 1892, 37 (*C.*
gyrinops Garman).

3127. *Cyclopteroides gyrinops* Garman.
 Pribilof Islands, Alaska.
Cyclopteroides gyrinops Garman, Mem. Mus. Comp. Zool., XIV, 1892,
 37, St. Paul Island.

Family 243. **LIPAROPIDÆ**

Genus 1104. **APTOCYCLUS** De la Pylaie.

Aptocyclus De la Pylaie, Congrès Scientifique Potiers, 1834, 529 (*Cy-*
clopterus ventricosus Pallas; misprinted *Cyclogasterus*).
Cycloptericichthys Steindachner, Ichth. Beitr., X, 1881, 14, 192 (*C.*
glaber Steindachner=*Cyclopterus ventricosus* Pallas).

3128. *Aptocyclus ventricosus* (Pallas).
 Kamchatka; Sea of Okhotsk.
Cyclopterus ventricosus Pallas, Spicilegium Zool., VII, 1770, 15, t. 2, no
 locality given, somewhere about Kamchatka.
Cycloptericichthys glaber Steindachner, Ichth. Beitr., X, 1881, 14, pl. 8,
 Sea of Okhotsk.

Genus 1105. **LIPAROPS** Garman.

Liparops Garman, Mem. Mus. Comp. Zool., XV, 1892, 42 (*Cyclopterus*
stelleri Pallas).

3129. *Liparops stelleri* (Pallas).
 Peter and Paul Harbor, Kamchatka.
Cyclopterus stelleri Pallas, Zoogr. Rosso-Asiatica, III, 1811, 73, Peter
 and Paul Harbor, Kamchatka.

Family 244. LIPARIDÆ. Sea snails

Genus 1106. POLYPERA Burke.

Polypera Burke, Proc. U. S. Nat. Mus., XLIII, 1913, 567 (*Liparis greeni* Jordan and Starks).

3130. *Polypera greeni* (Jordan and Starks).

Puget Sound at Victoria, British Columbia.

Neoliparis greeni Jordan and Starks, Proc. Calif. Acad. Sci., 2d ser., V, 1895, 829, pl. 96, figs. 2 and 3, Victoria, British Columbia.

Genus 1107. NEOLIPARIS Steindachner.

Neoliparis Steindachner, Ichth. Beitr., III, 1875, 54 (*Liparis mucosus* Ayres).

3131. *Neoliparis atlanticus* Jordan and Evermann. Sea snail; Lump sucker.

Common along rocky shores from Newfoundland to Cape Cod.

Neoliparis atlanticus Jordan and Evermann, Fishes North and Mid.

Amer., 1898, 2107, Godbout, Quebec.

Liparis monlagui of authors, not of Donovan, the European cognate.

3132. *Neoliparis mucosus* (Ayres).

Pacific coast from Puget Sound to San Francisco; rare.

Liparis mucosus Ayres, Proc. Calif. Acad. Nat. Sci., I, 1855, 22, San Francisco.

Neoliparis floræ Jordan and Starks, Proc. Calif. Acad. Sci., 2d ser., V, 1895, 830, pl. 96, fig. 1, Waadda Island, Straits of Juan de Fuca.

3133. *Neoliparis fissuratus* Starks.

Puget Sound.

Neoliparis fissuratus Starks, Proc. Calif. Acad. Sci., 2d ser., VI, 1896, 560, Port Ludlow, Puget Sound.

3134. *Neoliparis rutteri* Gilbert and Snyder.

Kodiak Island, Alaska.

Neoliparis rutteri Gilbert and Snyder, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2108, Ugah Bay, Kodiak Island.

3135. *Neoliparis bristolensis* (Burke).

Bristol Bay, Bering Sea.

Cyclogaster bristolensis Burke, Proc. U. S. Nat. Mus., XLIII, 1913, 567, Bristol Bay in about 20 fathoms.

3136. *Neoliparis calliodon* (Pallas).

Coasts of Alaska, north to Kamchatka and Bering Sea; recorded from St. Paul, Kamchatka, Plover Bay, Siberia, Unalaska, and Kodiak.

Cyclopterus calliodon Pallas, Zoogr. Rosso-Asiat., III, 1811, 75, Kamchatka and Aleutian Islands.

3137. *Neoliparis grebnitzkii* Schmidt.

Commander Islands.

Neoliparis grebnitzkii Schmidt, Fauna Mare Orientale, 1875, 61, Bering Island.

3138. *Neoliparis beringianus* (Gilbert and Burke).

Bering Island.

Cyclogaster (*Neoliparis*) *beringianus* Gilbert and Burke, Bull. U. S. Bur. Fish., XXX, 1910, 72; Nikolski, Bering Island.

3139. *Neoliparis micraspidophorus* (Burke).

Bering Island.

Cyclogaster (*Neoliparis*) *micraspidophorus* Burke, Bull. U. S. Bur. Fish., XXX, 1910, 71, Nikolski, Bering Island.

Genus 1108. LIPARIS Scopoli.

Cyclogaster ⁷⁷ Gronow, Act. Helvet., IV, 1760, 265 (*Cyclopterus liparis* Linnæus); nonbinomial.

Cyclogaster Gronow, Zoophyl., No. 198, 1763; nonbinomial.

Liparis (Artedi) Scopoli, Introd. Hist. Nat., 1777, 453 (*Cyclopterus liparis* Linnæus).

Cyclogaster Gronow, Cat. Fishes, ed. Gray, 1854, 40 (*Cyclopterus liparis* L.).

⁷⁷ We do not find that Gronow used the name *Cyclogaster* as binomial. Although later than Linnæus (1758), he had not then adopted, most likely had not heard of, the Linnæan system.

3140. *Liparis liparis* (Linnaeus). *Sea snail; Striped sea snail.*
 North Atlantic, on both shores, south to Connecticut and France,
 common north; very variable, a dozen color varieties having received
 names.
Cyclopterus liparis Linnaeus, Syst. Nat., Ed. XII, I, 1766, 414, northern
 ocean; after Artedi and Gronow.
Cyclopterus lineatus Lepechin, Nov. Comm. Petropol., XVIII, 1774,
 520, White Sea.
Cyclopterus liparis minor Fabricius, Fauna Greenlandica, 1780, 135,
 Greenland
Cyclopterus musculus Lacépède, Hist. Nat. Poiss., IV, 1802, 683, near
 Havre.
3141. *Liparis osborni* Townsend and Nichols
 Off southern California in 440 fathoms
Liparis osborni Townsend and Nichols, Bull. Amer. Mus. Nat. Hist.,
 LII, 1925, 14, fig. 4, off southern California.
3142. *Liparis cyclopus* Gunther
 Aleutian Islands to Puget Sound.
Liparis cyclopus Gunther, Cat., III, 1861, 162, Esquimaux Harbor,
 Vancouver Island.
3143. *Liparis megacephalus* (Burke).
 Southeastern Bering Sea.
Cyclogaster megacephalus Burke, Proc. U. S. Nat. Mus., XLIII, 1913,
 569, southeastern Bering Sea at 37 fathoms.
3144. *Liparis fucensis* Gilbert
 Straits of Fuca
Liparis fucensis Gilbert, Proc. Calif. Acad. Sci., 2d ser., V, 1895, 837,
 and Rept U S Fish Com., XIX, 1893, 447, Port Angeles, Straits of
 Juan de Fuca.
- Genus 1109. **CARELIPARIS** Garman.
Careliparis Garman, Mem. Mus. Comp. Zool., XIV, 1892, 62 (*Liparis*
agassizii Putnam).
3145. *Careliparis tunicatus* (Reinhardt).
 Greenland.
Liparis tunicata Reinhardt, Overs. Kong. Danske Vidensk. Selsk., VI,
 CXI, 1836, Greenland; after Fabricius
Liparis fabricii Krøyer, Naturh. Tidsskr., II, 1847, 274, Greenland;
 D. XIII, 27; A. II, 30; P. 34; C. 9; Vert. 46.
Liparis arctica Gill, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 191, Port
 Foulke, Greenland.
3146. *Careliparis agassizii* (Putnam)
 Bering Sea; Sakhalin Island.
Liparis agassizii Putnam, Proc. Amer. Assoc. Adv. Sci., 1874, 339,
 Sakhalin Channel of Tartary.
Liparis gibbus Bean, Proc. U. S. Nat. Mus., IV, 1881, 148, Unalaska,
 St. Paul Island, Indian Point, Cape Chaplin, and Plover Bay, Siberia.
3147. *Careliparis herschelini* (Scofield)
 Arctic Ocean.
Liparis herschelini Scofield, in Jordan and Evermann, Fishes North
 and Mid Amer., 1898, 2123, Herschel Island, Arctic Ocean, near
 mouth of the Mackenzie.
3148. *Careliparis dennyi* (Jordan and Starks).
 North Pacific, from Aleutian Islands to Puget Sound.
Liparis dennyi Jordan and Starks, Proc. Calif. Acad. Sci., 2d ser., V,
 1895, 835, pl. 98, Admiralty Inlet near Seattle.
- Genus 1110. **LYOLIPARIS** Jordan and Evermann.
Lyoliparis Jordan and Evermann, Check List, 1895, 451 (*Liparis*
pulchellus Ayres).
3149. *Lyoliparis pulchellus* (Ayres).
 Point Reyes, Calif.; northern Pacific, Alaska to Monterey.
Liparis pulchellus Ayres, Proc. Calif. Acad. Nat. Sci., I, 1855, 22, San
 Francisco.

- Genus 1111. ACTINOCHIR** Gill.
Actinochir Gill, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 190, 193 (*A. major* Gill)
- 3150. *Actinochir major* Gill.**
 Coasts of Greenland.
Actinochir major Gill, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 193, Greenland
Cyclopterus liparis major Fabricius, Fauna Groenland, 1780, 136, Greenland; *major* is here simply an adjective.
- Genus 1112. CRYSTALLICHTHYS** Jordan and Gilbert.
Crystallichthys Jordan and Gilbert, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2364 (*C. mirabilis* Jordan and Gilbert).
- 3151. *Crystallichthys mirabilis* Jordan and Gilbert.**
 Bering Sea.
Crystallichthys mirabilis Jordan and Gilbert, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2365, Provostmaya, Kamchatka.
- 3152. *Crystallichthys cyclospilus* Gilbert and Burke.**
 Bering Sea, Petrel Bank, St. Paul Island.
Crystallichthys cyclospilus Gilbert and Burke, Bull. U. S. Bur. Fish., XXX, 1910, 74, Petrel Bank.
- 3153. *Crystallichthys cyclostigma* (Gilbert).**
 Bristol Bay, Alaska
Liparis cyclostigma Gilbert, Rept. U. S. Fish Com., XIX, 1893, 446, Bristol Bay, Alaska, at Albatross station 3252, in 29½ fathoms.
- Genus 1113. BATHYPHASMA** Gilbert.
Bathyphasma Gilbert, Rept. U. S. Fish Com., XIX, 1893, 447 (*B. ovigerum* Gilbert).
- 3154. *Bathyphasma ovigerum* Gilbert.**
 Off Queen Charlotte Island, British Columbia.
Bathyphasma ovigerum Gilbert, Rept. U. S. Fish Com., XIX, 1893, 448, Queen Charlotte Islands, at Albatross station 3342 in 1,588 fathoms.
- Genus 1114. CAREMITRA** Jordan and Evermann.
Caremitra Jordan and Evermann, Check List, 1895, 452 (*Careproctus simus* Gilbert).
- 3155. *Caremitra sima* (Gilbert).**
 Off Unalaska Island
Careproctus simus Gilbert, Rept. U. S. Fish Com., XIX, 1893, 444, off Unalaska, at Albatross station 3331 in 350 fathoms.
- Genus 1115. LIPARISCUS** Gilbert.
Lipariscus Gilbert, Proc. U. S. Nat. Mus., XLVIII, 1915, 358 (*L. nanus* Gilbert).
- 3156. *Lipariscus nanus* Gilbert**
 Monterey Bay, Calif.
Lipariscus nanus Gilbert, Proc. U. S. Nat. Mus., XLVIII, 1915, 358, pl. 19, Monterey Bay in 32 to 309 fathoms.
- Genus 1116. EURYMEN** Gilbert and Burke.
Eurymen Gilbert and Burke, Bull. U. S. Bur. Fish., XXX, 1910, 64 (*E. gyrinus* Gilbert and Burke).
- 3157. *Eurymen gyrinus* Gilbert and Burke**
 Bering Sea.
Eurymen gyrinus Gilbert and Burke, Bull. U. S. Bur. Fish., XXX, 1910, 64, Avatcha Bay, east coast of Kamchatka.
- Genus 1117. ACANTHOLIPARIS** Gilbert and Burke.
Acantholiparis Gilbert and Burke, Bull. U. S. Bur. Fish., XXX, 1910, 83 (*A. opercularis* Gilbert and Burke).
- 3158. *Acantholiparis opercularis* Gilbert and Burke.**
 East coast of Kamchatka
Acantholiparis opercularis Gilbert and Burke, Bull. U. S. Bur. Fish., XXX, 1910, 83, Starichkof Island.

- Genus 1118. NECTOLIPARIS** Gilbert and Burke.
Nectoliparis Gilbert and Burke, Bull. U. S. Bur. Fish., XXX, 1910, 82 (*N. pelagicus* Gilbert and Burke).
3159. *Nectoliparis pelagicus* Gilbert and Burke.
 Bering Sea to Hokkaido, Japan; pelagic.
Nectoliparis pelagicus Gilbert and Burke, Bull. U. S. Bur. Fish., XXX, 1910, 82, fig. 27, Bering Sea.
- Genus 1119. ELASSODISCUS** Gilbert and Burke.
Elassodiscus Gilbert and Burke, Bull. U. S. Bur. Fish., XXX, 1910, 81 (*E. tremebundus* Gilbert and Burke).
3160. *Elassodiscus tremebundus* Gilbert and Burke.
 Coast of Kamchatka.
Elassodiscus tremebundus Gilbert and Burke, Bull. U. S. Bur. Fish., XXX, 1910, 81, Avatcha Bay.
- Genus 1120. CAREPROCTUS** Krøyer.
Careproctus Krøyer, Naturh. Tidskr., I, 1862, 253-257 (*Liparis reinhardi* Krøyer).
Allochir Jordan and Evermann, Check List, 1895, 452 (*Careproctus melanurus* Gilbert).
Allurus Jordan and Evermann, loc. cit., 452 (*Careproctus ectenes* Gilbert).
Alnectes Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2866 (*Careproctes ectenes* Gilbert, substitute for *Allurus*, preoccupied).
- Subgenus CAREPROCTUS** Krøyer.
3161. *Careproctus reinhardi* (Krøyer).
 Greenland, Jan Mayen, and Beeren Island.
Liparis reinhardi Krøyer, Naturh. Tidskr., I, 1862, 252, Greenland.
3162. *Careproctus colletti* Gilbert.
 South of Alaska Peninsula to Sea of Okhotsk.
Careproctus colletti Gilbert, Rept. U. S. Fish Com., XIX, 1893, 442, south of Alaska Peninsula, at Albatross station 3338 in 625 fathoms.
3163. *Careproctus phasma* Gilbert.
 Bristol Bay, Alaska.
Careproctus phasma Gilbert, Rept. U. S. Fish Com., XIX, 1893, 443, Bristol Bay, Alaska, at Albatross stations 3254 and 3256 in 46 and 49 fathoms.
3164. *Careproctus spectrum* Bean.
 Between Unga and Nagai Islands, Alaska.
Careproctus spectrum Bean, Proc. U. S. Nat. Mus., XIII, 1890, 40, between Unga and Nagai Islands, 160° 18' W., 55° 10' N., at Albatross station 2848 in 110 fathoms.
3165. *Careproctus ranulus* (Goode and Bean).
 Off Halifax Harbor.
Liparis ranula Goode and Bean, Proc. U. S. Nat. Mus., II, 1879, 46, Halifax.
3166. *Careproctus gelatinosus* (Pallas).
 Peter and Paul Harbor, Kamchatka.
Cyclopterus gelatinosus Pallas, Spicilegia, VII, 1769, 19, Peter and Paul Harbor, Kamchatka.
3167. *Careproctus ostentum* Gilbert.
 Unalaska Island.
Careproctus ostentum Gilbert, Rept. U. S. Fish Com., XIX, 1893, 444, north of Unalaska Island, at Albatross stations 3324 and 3331 in 109 and 350 fathoms.
3168. *Careproctus furcellus* Gilbert and Burke.
 Bering Sea.
Careproctus furcellus Gilbert and Burke, Bull. U. S. Bur. Fish., XXX, 1910, 80, between Petrel Bank and Agattu Island, Bering Sea.
3169. *Careproctus gilberti* Burke.
 Southeastern Alaska and British Columbia.
Careproctus gilberti Burke, Proc. U. S. Nat. Mus., XLIII, 1913, 570, Kodiak Island and neighborhood in 102 to 482 fathoms.

3170. *Careproctus candidus* Gilbert and Burke.
Attu Island, Aleutian Chain.
Careproctus candidus Gilbert and Burke, Bull. U. S. Bur. Fish., XXX,
1910, 77, fig. 22, East Cape, Attu Island, Alaska.
3171. *Careproctus mollis* Gilbert and Burke.
Attu Island, Aleutian Chain
Careproctus mollis Gilbert and Burke, Bull. U. S. Bur. Fish., XXX,
1910, 77, fig. 21, East Cape, Attu Island, Alaska.
3172. *Careproctus bowersianus* Gilbert and Burke.
Bering Sea.
Careproctus bowersianus Gilbert and Burke, Bull. U. S. Bur. Fish.,
XXX, 1910, 76, fig. 20, Bowers Bank, Bering Sea.
3173. *Careproctus opisthotremus* Gilbert and Burke.
Bering Sea.
Careproctus opisthotremus Gilbert and Burke, Bull. U. S. Bur. Fish.,
XXX, 1910, 78, fig. 23, Petrel Bank, between Attu and Agattu
Islands, Alaska.
3174. *Careproctus longifilis* Garman.
Off Galapagos Islands and Panama in deep water.
Careproctus longifilis Garman, Mem. Mus. Comp. Zool., XIV, 1892, 9,
southwest Panama.
3175. *Careproctus longipinnis* Burke.
Arctic Ocean; Faroe Islands to Beeren Island.
Careproctus longipinnis Burke, Ann. Mag. Nat. Hist., 8th ser., IX,
1912, 510, Ingolf station 139, north of the Faroe Islands, depth 702
Danish fathoms.
3176. *Careproctus melanurus* Gilbert.
Off coast of California and Oregon.
Careproctus melanurus Gilbert, Proc. U. S. Nat. Mus., XIV, 1891, 560,
off coasts of California and Oregon, at Albatross stations 2840, 2891,
and others in 178 to 339 fathoms.
3177. *Careproctus attenuatus* Gilbert and Burke.
Bering Sea.
Careproctus attenuatus Gilbert and Burke, Bull. U. S. Bur. Fish., XXX,
1910, 79, Petrel Bank and Agattu Island, Alaska in 482 fathoms.
- Subgenus ALLINECTES Jordan and Evermann.
3178. *Careproctus ectenes* Gilbert.
Unalaska Island.
Careproctus ectenes Gilbert, Rept. U. S. Fish Com., XIX, 1893, 442,
north of Unalaska, at Albatross station 3331 in 350 fathoms.
- Genus 1121. PROGNURUS Jordan and Evermann.
Prognurus Jordan and Evermann, Fishes North and Mid. Amer., 1890,
2866 (*P. cypselurus* Jordan and Gilbert).
3179. *Prognurus cypselurus* Jordan and Gilbert.
Bering Sea and north Pacific.
Prognurus cypselurus Jordan and Gilbert, in Jordan and Evermann,
Fishes North and Mid. Amer., 1898, 2866, Bogoslof Island, Bering
Sea.
- Genus 1122. GYRINICHTHYS Gilbert.
Gyrinichthys Gilbert, Rept. U. S. Fish Com., XIX, 1893, 444 (*G. miny-
tremus* Gilbert).
3180. *Gyrinichthys minytremus* Gilbert.
Off Unalaska Island, Alaska.
Gyrinichthys minytremus Gilbert, Rept. U. S. Fish Com., XIX, 1893,
444, north of Unalaska at Albatross station 3331 in 350 fathoms.

Genus 1123. PARALIPARIS⁷⁸ Collett.

- Paraliparis* Collett, Vid. Selsk. Forsk. Christiania, No. 14, 1878, 32 (*Paraliparis bathybi* Collett); species allied to *P. cephalus* with narrow gill openings.
- Amitra* Goode, Proc. U. S. Nat. Mus., III, 1880, 478 (*A. liparina* Goode).
- Monomitra* Goode, loc. cit., VI, 1883, 109 (*Amitra liparina* Goode); substitute for *Amitra* regarded as preoccupied by *Amitrus* Schonherr, a beetle.
- Hilgendorfia* Goode and Bean, Oceanic Ichthyol., 1895, 280 (*Paraliparis membranaceus* Gunther).
- Amitrichthys* Jordan and Evermann, Check List, 1895, 453 (*Paraliparis cephalus* Gilbert).
3181. *Paraliparis holomelas* Gilbert.
North of Unalaska Island, Alaska.
Paraliparis holomelas Gilbert, Rept. U. S. Fish Com., XIX, 1893, 441, north of Unalaska, at Albatross stations 3308 and 3332 in 406 and 1,625 fathoms.
3182. *Paraliparis cephalus* Gilbert.
Alaska to California.
Paraliparis cephalus Gilbert, Proc. U. S. Nat. Mus., XIV, 1891, 561, off California and Oregon, at Albatross station 2919 in 984 fathoms.
3183. *Paraliparis mento* Gilbert.
Coast of Oregon.
Paraliparis mento Gilbert, Proc. U. S. Nat. Mus., XIV, 1891, 562, off coast of Oregon, at Albatross station 3071 in 685 fathoms.
3184. *Paraliparis albescens* Gilbert.
Off Monterey Bay, Calif.
Paraliparis albescens Gilbert, Proc. U. S. Nat. Mus., XLVIII, 355, pl. 18, fig. 13, off Monterey Bay.
3185. *Paraliparis caudatus* Gilbert.
Monterey Bay, Calif.
Paraliparis caudatus Gilbert, Proc. U. S. Nat. Mus., XLVIII, 1915, 356, pl. 18, fig. 14, Monterey Bay.
3186. *Paraliparis deani* Burke.
Bering Sea; once taken in Monterey Bay.
Paraliparis deani Burke, Proc. U. S. Nat. Mus., XLIII, 1912, 571, Stevens Passage, Alaska.
3187. *Paraliparis dactylosus* Gilbert.
Off Santa Cruz, Calif.
Paraliparis dactylosus Gilbert, Rept. U. S. Fish Com., XIX, 1893, 469, pl. 34, fig. 2, off Santa Cruz, Calif., at Albatross station 3112, in 296 fathoms.
3188. *Paraliparis grandiceps* Garman.
Off Lower California in deep water.
Paraliparis grandiceps Garman, Mem. Mus. Comp. Zool., XXIV, 1899, off Lower California.
3189. *Paraliparis rosaceus* Gilbert.
Pacific coast of Mexico.
Paraliparis rosaceus Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 93, Pacific coast of Mexico, at Albatross stations 2898, 2935, and others in 61 to 158 fathoms.
3190. *Paraliparis fimbriatus* Garman.
Off Colombia and Galapagos Islands in deep water.
Paraliparis fimbriatus Garman, in Mem. Mus. Comp. Zool., XIV, 1892, 9, southwest of Panama.
3191. *Paraliparis attenuatus* Garman.
Off Bay of Panama in deep water.
Paraliparis attenuatus Garman, Deep Sea Fishes, Mem. Mus. Comp. Zool., XXIV, 1899, 118, pl. XXVII, off Bay of Panama

⁷⁸ This group of degenerate liparids is excessively abundant in all northern sea bottoms at considerable depth. It should, no doubt, be subdivided, but the present knowledge of the group hardly permits this.

3192. *Paraliparis angustifrons* Garman.
Off Bay of Panama in deep water.
Paraliparis angustifrons Garman, Mem. Mus. Comp. Zool. XXIV, 1899, 119, Pl. XXVII, Albatross station 3394, off Bay of Panama.
3193. *Paraliparis latifrons* Garman.
Off Bay of Panama in deep water.
Paraliparis latifrons Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 120, Pl. XXVII, off Bay of Panama.
3194. *Paraliparis garmani* Burke
Off coast of New England.
Paraliparis garmani Burke, Proc. U. S. Nat. Mus., XLIII, 1912, 572, off coast of New England in 328 to 542 fathoms.
3195. *Paraliparis copei* Goode and Bean
Gulf Stream
Paraliparis copei Goode and Bean, Oceanic Ichth., 1896, 279, fig. 353, Gulf Stream, at Albatross station 2232, 39° 12' 17" N., 72° 9' 30" W., in 520 fathoms.
- Subgenus **AMITRA** Goode and Bean.
3196. *Paraliparis liparinus* (Goode)
Atlantic Ocean, off Rhode Island.
Amitra liparina Goode, Proc. U. S. Nat. Mus., III, 1880, 478, off Rhode Island.
- Subgenus **HILGENDORFIA** Goode and Bean.
3197. *Paraliparis ulochir* Gilbert.
Gulf of California to Unalaska
Paraliparis ulochir Gilbert, Rept. U. S. Fish Com., XIX, 1893, 441, Gulf of California, at Albatross station 3010 in 1005 fathoms.
- Genus 1194. **RHINOLIPARIS** Gilbert.
Rhinoliparis Gilbert, Rept. U. S. Fish Com., XIX, 1893, 445 (*R. barbuhfer* Gilbert).
3198. *Rhinoliparis barbuhfer* Gilbert.
Bering Sea.
Rhinoliparis barbuhfer Gilbert, Rept. U. S. Fish Com., XIX, 1893, 445, north of Unalaska, Alaska, at Albatross stations 3237, 3325, and others, in 225 to 576 fathoms.
3199. *Rhinoliparis attenuatus* Burke.
Bering Sea.
Rhinoliparis attenuatus Burke, Proc. U. S. Nat. Mus., XLIII, 1912, 573, Bering Sea in 576 fathoms.

Family 245. **PERISTEDIIDÆ**

- Genus 1125. **PERISTEDION** Lacépède.
Peristedion Lacépède, Hist. Nat. Poiss., III, 1802, 368 (*P. malarma* Lacépède = *Trigla cataphracta* L.).
Peristethus Kaup, amended spelling.
3200. *Peristedion brevirostre* (Günther).
Caribbean Sea.
Peristethus brevirostre Günther, Cat., II, 1860, 217, West Indies.
3201. *Peristedion miniatum* Goode.
Gulf Stream.
Peristedion miniatum Goode, Proc. U. S. Nat. Mus., III, 1880, 349, Gulf Stream, off Rhode Island.
3202. *Peristedion longispathum* (Goode and Bean).
West Indies, off Cuba and Barbados.
Peristedum longispatha Goode and Bean, Bull. Mus. Comp. Zool., XII, 1886, No. 5, 166, off Santa Cruz Island, West Indies, and off Barbados.
3203. *Peristedion gracile* Goode and Bean.
Gulf of Mexico and Porto Rico
Peristedion gracile Goode and Bean, Oceanic Ichth., 1896, 473, Gulf of Mexico.

- 3204. *Peristedion platycephalum*** (Goode and Bean).
West Indies; Barbados
Peristedium platycephalum Goode and Bean, Bull. Mus. Comp. Zool., XII, 1886, No 5, 167, off Barbados.
- 3205. *Peristedion barbiger*** (Garman).
Off Bay of Panama in deep water.
Peristedium barbiger Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 110, off Bay of Panama.
- 3206. *Peristedion crustosum*** (Garman).
Off Bay of Panama in deep water
Peristedium crustosum Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 112, Pl. A, off Bay of Panama.
- Genus 1126. *Vulsiculus*** Jordan and Evermann.
Vulsiculus Jordan and Evermann, Check List, 1895, 489 (*Peristedion umberbe* Poey).
- 3207. *Vulsiculus imberbis*** (Poey).
Gulf of Mexico
Pterystedion umberbe Poey, Memorias, II, 1861, 367, Cuba; apparently never described.
Peristedion micronemus Poey, Ann. Lyc. Nat. Hist. N. Y., IX, 1870, 321, Cuba; substitute name on discovery of the minute barbels.

Family 246. TRIGLIDÆ

- Genus 1127. *Colotrigla*** Gill.
Colotrigla Gill, Proc. U. S. Nat. Mus., XXVII, 1905, 240 (*Prionotus stearnsi* Jordan and Swain).
- 3208. *Colotrigla stearnsi*** (Jordan and Swain).
Gulf of Mexico.
Prionotus stearnsi Jordan and Swain, Proc. U. S. Nat. Mus., VII, 1884, 541, Pensacola, Fla.
- Genus 1128. *Gurnardus*** Jordan and Evermann.
Gurnardus Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2152 (*Prionotus gymnotethus* Gilbert).
- 3209. *Gurnardus birostratus*** (Richardson).
Gulf of Fonseca, Pacific coast of Central America.
Prionotus birostratus Richardson, Voy. Sulphur, Ichth., pt. II, 1845, 81, April, Gulf of Fonseca, Pacific coast of Central America.
- 3210. *Gurnardus gymnotethus*** (Gilbert).
Gulf of California.
Prionotus gymnotethus Gilbert, Proc. U. S. Nat. Mus., XIV, 1891, 559, Gulf of California, in shallow water.
- 3211. *Gurnardus xenisma*** (Jordan and Bollman).
Pacific Ocean, off coast of Colombia.
Prionotus xenisma Jordan and Bollman, Proc. U. S. Nat. Mus., XII, 1889, 169, Pacific coast of Colombia.
- 3212. *Gurnardus loxias*** Jordan.
Pacific coast of Central America.
Prionotus loxias Jordan, Proc. U. S. Nat. Mus., XIX, 1896, 452, Bay of Panama.
- 3213. *Gurnardus ruscarius*** (Gilbert and Starks).
Panama Bay; Mazatlan; Magdalena Bay.
Prionotus ruscarius Gilbert and Starks, Mem. Calif. Acad. Sci., IV, 1904, 165, Pl. XXVII, Panama Bay.
- Genus 1129. *Merulinus*** Jordan and Evermann.
Merulinus Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2148 (*Trigla carolina* Linnaeus).

- 3214. *Merulinus carolinus*** (Linnæus). *Common gurnard; Red-winged sea robin; Pigfish; Rock pigfish; Flyingfish; Spinous gurnard; Small-scaled sea robin; Web-fingered sea robin; Carolina robin; Carolina sea robin.*
Cape Ann to South Carolina, chiefly northward.
Trigla carolina Linnæus, Mantissa, II, 1771, 528, Carolina.
Trigla palmipes Mitchell, Trans. Lit. Phil. Soc. New York, 1815, 431, pl. 4, fig. 5, New York Harbor.
Prionotus pileatus Storer, Proc. Bost. Soc. Nat. Hist., II, 1845, 77, Massachusetts Bay.
- 3215. *Merulinus scitulus*** (Jordan and Gilbert)
South Atlantic coast of United States, Beaufort to St. Augustine.
Prionotus scitulus Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 288, Beaufort, N. C.
- 3216. *Merulinus roseus*** (Jordan and Evermann)
Gulf of Mexico; Tampa Bay, Pensacola; Tortugas.
Prionotus roseus Jordan and Evermann, Proc. U. S. Nat. Mus., IX, 1886, 470, off Tampa Bay, Fla.
- 3217. *Merulinus salmonicolor*** Fowler.
New River, Dade County, Fla.
Merulinus salmonicolor Fowler, Proc. Acad. Nat. Sci. Phila., LV, 1903, 333, New River, Fla.
- Genus 1130. PRIONOTUS Lacépède.** *Gurnards; Sea robins.*
Prionotus Lacépède, Hist. Nat. Poiss., III, 1802, 337 (*Trigla evolans* Linnæus).
Ornichthys Swainson, Classn. Fishes, Amphib., etc., 1839, 262 (*Trigla punctata* Bloch).
Chriolax Jordan and Gilbert, Proc. U. S. Nat. Mus., I, 1878, 374 (*Trigla evolans* Linnæus).
- 3218. *Prionotus evolans*** (Linnæus). *Southern striped gurnard; Lined sea robin; Flyingfish; Striped sea robin.*
South Atlantic coast of United States.
Trigla evolans Linnæus, Syst. Nat., Ed. XII, 1766, 498, Carolinas.
Prionotus sarritor Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 615, Charleston; Beaufort, N. C.
- 3219. *Prionotus strigatus*** (Cuvier). *Northern striped gurnard; Brown-winged sea robin; Sea robin; Sand pigfish; Pigfish; Flyingfish; Red-winged gurnard.*
Atlantic coast of northern States, Cape Cod to Virginia; replacing *P. evolans* northward.
Trigla strigata Cuvier, Règne Anim., ed. 2, II, 1829, 161, New York; after *lineata* of Mitchill.
- 3220. *Prionotus rubio*** Jordan. *Rubio volador.*
West Indies.
Prionotus rubio Jordan, Proc. U. S. Nat. Mus., IX, 1886, 50, Habana.
Rubio volador Parra, Descr. Dif. Piezas de Hist. Nat., 1787, 98, lám. 38, Habana.
- 3221. *Prionotus punctatus*** Bloch. *Spotted sea robin; Rubio volador.*
West Indies and Caribbean Sea; Cameron, La.
Prionotus punctatus Bloch, Ichth., 1793, pl. 353, Martinique; on a drawing by Plumier.
- 3222. *Prionotus ophryas*** Jordan and Swain.
Gulf of Mexico; Snapper Banks off Pensacola, Fla.
Prionotus ophryas Jordan and Swain, Proc. U. S. Nat. Mus., VII, 1884, 542, Snapper Banks off Pensacola, Fla.
- 3223. *Prionotus pectoralis*** (Nichols and Breder).
Coast of Texas.
Prionotus miles pectoralis Nichols and Breder, Proc. Biol. Soc. Wash., XXXVII, 1924, 22, Gulf of Mexico, off Aransas Pass, Tex.
- 3224. *Prionotus stephanophrys*** Lockington.
Deep water off San Francisco, Point Reyes, and Monterey; very rare.
Prionotus stephanophrys Lockington, Proc. U. S. Nat. Mus., III, 1880, 529, Point Reyes, near San Francisco.

3225. *Prionotus quiescens* Jordan and Bollman
Pacific Ocean off the coast of Colombia; Gulf of California.
Prionotus quiescens Jordan and Bollman, Proc. U. S. Nat. Mus., XII, 1889, 166, off Pacific coast of Colombia.
3226. *Prionotus frontalis* Garman.
Off Bay of Panama in deep water.
Prionotus frontalis Garman, Deep Sea Fishes, in Mem. Mus. Comp. Zool., XXIV, 1899, 108, off Bay of Panama.
3227. *Prionotus albirostris* Jordan and Bollman.
Pacific Ocean off the coast of tropical America.
Prionotus albirostris Jordan and Bollman, Proc. U. S. Nat. Mus., XII, 1889, 168, Pacific Ocean off the coast of Colombia.
3228. *Prionotus beanii* Goode.
Off Trinidad.
Prionotus beanii Goode, in Goode and Bean, Oceanic Ichth., 1896, 468, off Trinidad.
3229. *Prionotus tribulus* Cuvier and Valenciennes. *Big-headed gurnard*; *Sea robin*.
South Atlantic coast from Long Island to Brazos, Tex.
Prionotus tribulus Cuvier and Valenciennes, Hist. Nat. Poiss., IV, 1829, 72 (98), pl. 74, New York; Carolinas.
? *Trigla carolina* Bloch, Ichth., 1793, 352, Carolinas; not of Linnæus.
3230. *Prionotus horrens* Richardson.
Pacific coast of tropical America.
Prionotus horrens Richardson, Voy. Sulphur, Ichth., 1843, 79, pl. 42, figs 1-3, Gulf of Fonseca.
- Genus 1131. *FISSALA* Gill.
Fissala Gill, Proc. U. S. Nat. Mus., XXVIII, 1905, 342 (*Prionotus alatus* Goode and Bean).
3231. *Fissala alata* (Goode and Bean).
Off Charleston, S. C.
Prionotus alatus Goode and Bean, Bull. Mus. Comp. Zool., X, 1883, 210, deep sea off Charleston, S. C.
- Genus 1132. *BELLATOR* Jordan and Evermann.
Bellator Jordan and Evermann, Check List, 1895, 488 (*Prionotus militaris* Goode and Bean).
3232. *Bellator militaris* (Goode and Bean).
Off Cape Catoche, Yucatan; Gulf of Mexico.
Prionotus militaris Goode and Bean, Oceanic Ichth., 1896, 464, figs. 380 and 384, off Cape Catoche, Yucatan.
3233. *Bellator egretta* (Goode and Bean).
Barbados.
Prionotus egretta Goode and Bean, Oceanic Ichth., 1896, 465, fig. 381, off Barbados, at Blake station 64.

Family 247. DACTYLOPTERIDÆ

- Genus 1133. *DACTYLOPTERUS* Lacépède. *Flying gurnards*.
Cephalacanthus Lacépède, Hist. Nat. Poiss., III, 1802, 323 (*C. spinarella* Lacépède); young examples.
Dactylopterus Lacépède, loc. cit., 325 (*D. pirapeda* Lacépède = *Trigla volitans* Linnæus); adult form.
Cephacandia Rafinesque, Analyse Nature, 1815, 85; substitute for *Cephalacanthus*; too long a name.
Gonocephalus Gronow, Cat. Fish., ed. Gray, 1854, 106 (*G. macrocephalus* Gray = *Trigla volitans* Linnæus).

- 3234. *Dactylopterus volitans* (Linnæus).** *Flying robin, Batfish; Volador, Flying gurnard; Murcielago; Cwelta de mer.*
 Atlantic Ocean on both coasts; also Gulf of Mexico.
Trigla volitans Linnæus, Syst. Nat., Ed. X, I, 1758, 302; after Artedi.
Hirundo Catesby, Nat. Hist. Carol., II, 1771, Tab. 8, p. 8, Bahamas.
Trigla tentabunda Walbaum, Artedi Piscium, III, 1792, 362; after Klein.
Trigla fasciata Bloch and Schneider, Syst. Ichth., 1801, 16, tab. 3, fig. 1; after Klein.
Dactylopterus pirapeda Lacépède, Hist. Nat. Poiss., III, 1802, 326, Mediterranean and almost all warm seas.
Polynemus sexradiatus Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, pl. 4, fig. 10, New York.
Callionymus pelagicus Rafinesque, Amer. Month. Mag., 1818, 205, Atlantic Ocean.
Gonocephalus macrocephalus Gronow, Cat. Fish., ed. Gray, 1854, 106; pelagic.

Order SS. HOLCONOTI

Family 248. EMBIOTOCIDÆ. Surffishes; Viviparous perches

- Genus 1134. MICROMETRUS** Gibbons.
Micrometrus Gibbons, Proc. Calif. Acad. Nat. Sci., in Daily Placer Times and Transcript, May 30, 1854 (*M. minimus* Gibbons).
Abeona Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 322 (*A. trowbridgei* Girard).
- 3235. *Micrometrus minimus* (Gibbons).**
 San Francisco to San Diego.
Cymatogaster minimus Gibbons, Proc. Acad. Nat. Sci. Phila., VII, 1854, 106, San Francisco Bay.
Holoconotus trowbridgei Girard, loc. cit., 152, no locality given.
- Genus 1135. AMPHIGONOPTERUS** Hubbs.
Amphigonopterus Hubbs, Proc. Biol. Soc. Wash., XXXI, May 16, 1918, 13 (*Abeona aurora* Jordan and Gilbert).
- 3236. *Amphigonopterus aurora* (Jordan and Gilbert).**
 Monterey Bay, Calif.
Abeona aurora Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 299, Monterey Bay, Calif.
- Genus 1136. CYMATOGASTER** Gibbons.
Cymatogaster Gibbons, Proc. Calif. Acad. Nat. Sci., in Daily Placer Times and Transcript, May 18, 1854 (*C. aggregatus* Gibbons).
Metrogaster Agassiz, Proc. Bost. Soc. Nat. Hist., VIII, 1861, 128 (*Cymatogaster aggregatus* Gibbons).
Sema Jordan, Bull. U. S. Geol. Surv., IV, 1878, 399 (*S. signifer* Jordan; larvæ with very high vertical fins and closely compressed body).
- 3237. *Cymatogaster aggregatus* Gibbons.** *Sparada; Viviparous perch; Perch*
 Pacific coast from Port Wrangel, Alaska, to Todos Santos Bay.
Cymatogaster aggregatus Gibbons, Proc. Calif. Acad. Nat. Sci., in Daily Placer Times and Transcript, May 18, 1854, San Francisco.
Sema signifer Jordan, Bull. Hayden's Geol. Surv., IV, 1878, 399, Rio Grande, Tex.; error for San Francisco.
Metrogaster lineolatus Agassiz, Proc. Bost. Soc. Nat. Hist., VIII, 1861, 129, no locality.
- Genus 1137. BRACHYISTIUS** Gill.
Brachyistius Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 275 (*B. frenatus* Gill).
- 3238. *Brachyistius frenatus* Gill.**
 Vancouver Island to San Diego.
Brachyistius frenatus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 275, California coast.
Ditrema brevipinne Günther, Cat., IV, 1862, 248, Esquimaux Harbor, Vancouver Island.

- Genus 1138. **ZALEMBIUS** Jordan and Evermann.
Zalembeus Jordan and Evermann, Fishes North and Mid. Amer., 1896,
 1499 (*Cymatogaster rosaceus* Jordan and Gilbert)
3239. **Zalembeus rosaceus** (Jordan and Gilbert).
 San Francisco, Calif.
Cymatogaster rosaceus Jordan and Gilbert, Proc. U. S. Nat. Mus., III,
 1880, 303, off San Francisco in rather deep water; the other species of
 this family live on sandy shores.
- Genus 1139. **HYPOCRITICHTHYS** Gill.
Hypocritichthys Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 275
 (*Hyperprosopon analis* Alexander Agassiz).
3240. **Hypocritichthys analis** (Agassiz).
 San Francisco to Point Conception
Hyperprosopon analis Alexander Agassiz, Proc. Bost. Soc. Nat. Hist.,
 VIII, 1861, 133, San Francisco.
- Genus 1140. **TOCICHTHYS** Hubbs.
Tocichthys Hubbs, Proc. Biol. Soc. Wash., XXXI, May 16, 1918, 12
 (*Hyperprosopon agassizii* Gill).
3241. **Tocichthys agassizii** (Gill).
 Coast of California, San Francisco to Santa Barbara; most common
 along San Luis Obispo County.
Hyperprosopon agassizii Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862,
 276, California.
- Genus 1141. **HYPERPROSOPON** Gibbons.
Hyperprosopon Gibbons, Proc. Calif. Acad. Nat. Sci., in Daily Placer
 Times and Transcript, May 18, 1854 (*H. argenteum* Gibbons).
Eumichthys Girard, Proc. Acad. Nat. Sci. Phila., VII, 1855, 322 (*E.*
megalops Girard).
Bramopsis Alexander Agassiz, Proc. Bost. Soc. Nat. Hist., VIII, 1861,
 132 (*B. mento* Agassiz = *Hyperprosopon argenteus* Girard).
3242. **Hyperprosopon argenteus** Gibbons. *Wall-eyed surf-fish, White perch.*
 Coast of California, Cape Disappointment to Todos Santos Bay.
Hyperprosopon argenteum Gibbons, Proc. Acad. Nat. Sci. Phila., VII,
 1854, 105, San Francisco.
Hyperprosopon argenteum punctatum Gibbons, loc. cit., 106, San Fran-
 cisco.
Hyperprosopon arcuatum Gibbons, loc. cit., 125, San Francisco.
Holconotus megalops Girard, loc. cit., Presidio, Humboldt Bay; Astoria.
Bramopsis mento Agassiz, Proc. Bost. Soc. Nat. Hist., VIII, 1861, 133,
 no locality.
- Genus 1142. **HOLCONOTUS** Agassiz.
Holconotus Agassiz, Amer. Jour. Sci. Arts., XVII, May, 1854, 367 (*H.*
rhodotus Agassiz).
Cymatogaster Gibbons, Proc. Calif. Acad. Nat. Sci., in Daily Placer
 Times and Transcript, June 21, 1854 (*C. pulchellus* Gibbons); not
 of Gibbons, May 18, 1854.
3243. **Holconotus rhodotus** Agassiz.
 Coast of California, San Francisco to San Diego.
Holconotus rhodotus Agassiz, Amer. Jour. Sci. Arts., XVII, May,
 1854, 368, San Francisco.
Cymatogaster pulchellus Gibbons, Proc. Acad. Nat. Sci. Phila., VII,
 July, 1854, 123, San Francisco.
Cymatogaster larkinsi Gibbons, loc. cit., 123, San Francisco.
Cymatogaster ellipticus Gibbons, loc. cit., 124, San Francisco.
- Genus 1143. **AMPHISTICHUS** Agassiz.
Amphistichus Agassiz, Amer. Jour. Sci. Arts., May, 1854, 367 (*A. argen-
 teus* Agassiz).
Mytilophagus Gibbons, Proc. Acad. Nat. Sci. Phila., VI, July, 1854,
 125 (*M. fasciatus* Gibbons = *A. argenteus* Agassiz).

3244. *Amphistichus argenteus* Agassiz.

Pacific coast, from Cape Flattery to San Diego; very abundant on sandy shores

Amphistichus argenteus Agassiz, Amer. Jour. Sci. Arts, XVII, May, 1854, 367, San Francisco

Mytilophagus fasciatus Gibbons, Proc. Acad. Nat. Sci. Phila., VII, July, 1854, 125, San Francisco.

Amphistichus heermanni Girard, loc. cit., 135, Cape Flattery, San Francisco.

Amphistichus similis Girard, loc. cit., 153, San Francisco.

Genus 1144. EMBIOTOCA Agassiz.

Embiotoca Agassiz, Amer. Jour. Sci. Arts, XVI, 1853 (November), 386 (*E. jacksoni* Agassiz).

3245. *Embiotoca jacksoni* Agassiz. Black surfish.

Vancouver Island to Todos Santos Bay; abundant and variable.

Embiotoca jacksoni Agassiz, Amer. Jour. Sci. Arts, XVII, 1853, 387, and XVIII, 1854, 366, San Francisco.

Holconotus fuliginosus Gibbons, Proc. Acad. Nat. Sci. Phila., VII, 1854, 123, San Francisco.

Embiotoca cassidy Girard, loc. cit., 151, San Diego.

?*Embiotoca webber* Girard, loc. cit., VIII, 1855, 320, San Diego.

Genus 1145. TÆNIOTOCA Alexander Agassiz.

Holconotus Gibbons, Proc. Acad. Nat. Sci. Phila., VII, 1854 (July), 122 (*H. agassizii* Gibbons=*Embiotoca lateralis* Agassiz); not *Holconotus* Agassiz.

Tæniotoca Alexander Agassiz, Proc. Bost. Soc. Nat. Hist., VIII, 1861, 133 (*Embiotoca lateralis* Agassiz).

3246. *Tæniotoca lateralis* (Agassiz). Striped surfish.

Vancouver Island to Todos Santos Bay; abundant southward.

Embiotoca lateralis Agassiz, Amer. Jour. Sci. Arts., XVIII, 1854 (May), 356, San Francisco.

Holconotus agassizii Gibbons, Proc. Acad. Nat. Sci. Phila., VII, 1854 (July), 122, San Francisco.

Embiotoca lineata Girard, loc. cit., (Aug.), 134, San Francisco, Tomales Bay, Presidio.

Embiotoca ornata Girard, loc. cit., VII, 1855, 321, San Diego, Calif.

Embiotoca perspicabilis Girard, loc. cit., 321, Puget Sound.

Genus 1146. PHANERODON Girard.

Phanerodon Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 153 (*P. furcatus* Girard).

3247. *Phanerodon furcatus* Girard. White surfish.

Pacific coast from Vancouver Island to Todos Santos Bay; abundant southward.

Phanerodon furcatus Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 153, Presidio, San Francisco, Calif.

3248. *Phanerodon atripes* (Jordan and Gilbert).

Monterey to San Diego; scarce.

Ditrema atripes Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 320, Monterey Bay, Calif.

Ditrema orthonotus Eigenmann and Eigenmann, West American Scientist, October, 1889, 127, Cortez Banks, off San Diego.

Genus 1147. RHACOCCHILUS Agassiz.

Rhacochilus Agassiz, Amer. Jour. Sci. Arts, XVIII, 1854 (May), 367 (*R. toxotes* Agassiz).

Pachylabrus Gibbons, Proc. Calif. Acad. Sci., in Daily Placer Times and Transcript, June 21, 1854 (*P. variegatus* Gibbons=*R. toxotes* Agassiz).

3249. *Rhacochilus toxotes* Agassiz. Bigmouth surfish; Alfonsa.

Rhacochilus toxotes Agassiz, Amer. Jour. Sci. Arts, XVIII, 1854 (May), 367, San Francisco.

Pachylabrus variegatus Gibbons, Proc. Acad. Nat. Sci. Phila., VII, 1854 (July), 126, San Francisco.

Genus 1148. HYP SURUS Alexander Agassiz.

Hypsurus Alexander Agassiz, Proc. Bost. Soc. Nat. Hist., VIII, 1861, 133 (*Embiotoca caryi* Agassiz).

3250. Hypsurus caryi (Agassiz). *Bugara*.

Cape Mendocino to San Diego; common northward.

Embiotoca caryi Agassiz, Amer. Jour. Sci. Arts, XVI, 1853, 389, and XVII, 1854, 366, San Francisco.

Holconotus gibbonsi (Gibbons MS., Proc. Calif. Acad. Sci., 1854), Gibbons, Proc. Acad. Nat. Sci. Phila., VII, 1854, 12, San Francisco.

Genus 1149. DAMALICHTHYS Girard.

Damalichthys Girard, Proc. Acad. Nat. Sci. Phila., VII, 1855, 321 (*D. vacca* Girard = *D. argyrosoma* Girard).

3251. Damalichthys argyrosoma Girard.

Vancouver Island to Todos Santos Bay; very abundant northward.

Damalichthys argyrosoma Girard, Proc. Acad. Nat. Sci. Phila., VII, 1855, 136, San Francisco; young individual in bad condition.

Damalichthys vacca Girard, loc. cit., 321, Puget Sound.

Genus 1150. HYSTEROCARPUS Gibbons.

Hysteroecarpus Gibbons, Proc. Calif. Acad. Nat. Sci., in Daily Placer Times and Transcript, May 18, 1854, and in Proc. Acad. Nat. Sci. Phila., VII, 1854, 124 (*H. traski* Gibbons).

Sargosomus Agassiz, in Alexander Agassiz, Proc. Bost. Soc. Nat. Hist., VIII, 1861, 128 (*S. fluviatilis* Agassiz = *Hysteroecarpus traski* Gibbons).

Dacentrus Jordan, Bull. U. S. Geol. Surv., IV, 1878, 667 (*D. lucens* Jordan; very young).

3252. Hysteroecarpus traski Gibbons.

Rivers of central California, chiefly in the Sacramento-San Joaquin Valley from Lake County to Santa Clara County.

Hysteroecarpus traski Gibbons, Proc. Acad. Nat. Sci., Phila., VII, 1854, 105, lower Sacramento River.

Sargosomus fluviatilis Agassiz, Proc. Bost. Soc. Nat. Hist., VIII, 1861, 130, Sacramento.

Dacentrus lucens Jordan, Bull. U. S. Geol. Surv., IV, 1878, 667, "Rio Grande, Tex." locality erroneous, should be San Francisco.

Order TT. CHROMIDES**Family 249. POMACENTRIDÆ****Genus 1151. AZURINA** Jordan and McGregor.

Azurina Jordan and McGregor, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 1544 (*A. hirundo* Jordan and McGregor).

3253. Azurina hirundo Jordan and McGregor.

Pacific coast of Mexico.

Azurina hirundo Jordan and McGregor, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 1544, Guadalupe Island, off Lower California.

Genus 1152. FURCARIA Poey.

Furcaria Poey, Memorias, II, 1860, 194 (*F. puncta* Poey = *Heliasas multilineatus* Guichenot in Ramon de la Sagra, Hist. fisica Cuba, IV).

3254. Furcaria atrilobata (Gill).

Pacific coast of America, from Cape San Lucas southward.

Chromis (*Furcaria*) *atrilobata* Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 149, Cape San Lucas, Lower California.

3255. Furcaria cyanea Poey.

Cuba.

Furcaria cyanea Poey, Memorias, II, 1860, 196, Cuba.

3256. Furcaria multilineata (Guichenot).

Cuba.

Heliasas multilineatus Guichenot, in Ramon de la Sagra, Poiss. Cuba, 1853, 76, pl. 2, fig. 2, Habana.

Furcaria puncta Poey, Memorias, II, 1860, 195, Cuba.

- 3257. *Furcaria bermudæ* (Nichols).**
 Bermuda.
Chromis bermudæ Nichols, Proc. Biol. Soc. Wash., XXXIII, 1920, 60, Bermuda.
- Genus 1153. HELIASES Cuvier and Valenciennes.**
Heliases Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830, 369 (495)
 (*H. insolatus* Cuvier and Valenciennes).
Heliastes Gunther, revised spelling.
- 3258. *Heliases insolatus* Cuvier and Valenciennes. *Chauffe soleil*.**
 West Indies, north to Pensacola.
Heliases insolatus Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830, 370 (494), pl. 137, Martinique.
- 3259. *Heliases enchrysurus* (Jordan and Gilbert).**
 Snapper Banks off Pensacola and Tampa, Fla.
Chromis enchrysurus Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 286, Pensacola, Fla.
- 3260. *Heliases marginatus* Castelnau.**
 Brazil; St. Croix Island, West Indies.
Heliases marginatus Castelnau, Anim. Amer. Sud, Poiss., 1855, 9, Pl. III, fig. 1, Bahia.
- Genus 1154. AYRESIA⁷⁹ Cooper.**
Ayresia Cooper, Proc. Calif. Acad. Nat. Sci., 1st ser., III, 1863, 73 (*A. punctipinnis* Cooper).
- 3261. *Ayresia punctipinnis* Cooper. *Blacksmith*.**
 Coast of California, from Point Conception to Cedros Island.
Ayresia punctipinnis Cooper, Proc. Calif. Acad. Nat. Sci., 1st ser., III, 1863, 73, San Diego Bay, San Pedro, and Santa Barbara.
- Genus 1155. EUPOMACENTRUS⁸⁰ Bleeker.**
Eupomacentrus Bleeker, Nat. Verh. Holl. Maats., Wetensk., II, 1877, 73 (*Pomacentrus lvidus* Bleeker); teeth in one row, truncate; snout scaly; lower jaw naked; dorsal not notched.
Amblypomacentrus Bleeker, loc. cit., 68 (*Pomacentrus breviceps*); similar, snout naked.
- 3262. *Eupomacentrus fuscus* (Cuvier and Valenciennes). *Maria molle*.**
 West Indies and coast of Brazil north to Key West.
Pomacentrus fuscus Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830, 324 (432), Brazil
Pomacentrus variabilis Castelnau, Anim. Nouv. ou Rares, Poiss., 1855, .9, pl. 3, fig. 3, Bahia.
Pomacentrus atro-cyanus Poey, Memorias, II, 1861, 190, Cuba.
- 3263. *Eupomacentrus diencæus* Jordan and Rutter.**
 Jamaica.
Eupomacentrus diencæus Jordan and Rutter, Proc. Acad. Nat. Sci. Phila., XLIX, 1897, 116, Jamaica.
- 3264. *Eupomacentrus leucostictus* (Müller and Troschel). *Cockeye pilot*; *Beau Gregoire*; *Black pilot*.**
 West Indies to Snapper Banks, west Florida; accidental north to Woods Hole, Mass.
Pomacentrus leucostictus Müller and Troschel, in Schomburgk's Hist. Barbados, 1848, 674, Barbados.
Pomacentrus xanthurus Poey, Memorias, II, 1861, 190, Cuba.
Pomacentrus caudalis Poey, Synopsis, 1867, 328, Cuba.
Pomacentrus dorso-panicans Poey, loc. cit., 328, Cuba.
- 3265. *Eupomacentrus analis* (Poey).**
 Cuba, Key West, and Porto Rico.
Pomacentrus analis Poey, Synopsis, 1867, 327, Cuba.

⁷⁹ This genus is near the Mediterranean genus *Chromis* Cuvier, based on *Sparus chromis* Linnaeus, a species with 14 dorsal spines, the head high and narrow, the tail short, the caudal not deeply forked. *Furcaria* and *Heliases* are also closely related and usually the four groups have been united into one as *Chromis* or "*Heliastes*."

⁸⁰ In the closely related old world genus *Pomacentrus* the teeth are in two rows. Several of the species here accepted are of very doubtful validity, and the genera of Bleeker derived from the subdivisions of *Pomacentrus* need further study.

3266. *Eupomacentrus otophorus* (Poey).
Cuba.
Pomacentrus otophorus Poey, *Memorias*, II, 1861, 188, Cuba.
3267. *Eupomacentrus chrysus* Bean.
Bermudas
Eupomacentrus chrysus Bean, *Proc. Biol. Soc. Wash.*, XIX, 1906, 32, Whites Flat Channel, Bermudas
3268. *Eupomacentrus flaviventer* (Troschel).
Atlantic coast of Mexico.
Pomacentrus flaviventer Troschel, in J. W. von Müller's *Reisen in den Vereinigten Staaten, Canada, und Mexico*, III, 1865, 633, Atlantic Ocean
3269. *Eupomacentrus gillii* (Gilbert and Starks).
Panama.
Pomacentrus gillii Gilbert and Starks, *Mem. Calif. Acad. Sci.*, IV, 1904, 141, pl. XXII, fig. 44, Panama.
3270. *Eupomacentrus partitus* (Poey).
Cuba.
Pomacentrus partitus Poey, *Synopsis*, 1867, 327, Cuba.
3271. *Eupomacentrus planifrons* (Cuvier and Valenciennes). *Petite jaquette*.
Tortugas; West Indies, Jamaica to Martinique.
Pomacentrus planifrons Cuvier and Valenciennes, *Hist. Nat. Poiss.*, V, 1830, 323 (431), Martinique.
3272. *Eupomacentrus leucorus* (Gilbert).
Socorro Island, one of the Revillagigedo group, off Pacific coast of Mexico.
Pomacentrus leucorus Gilbert, *Proc. U. S. Nat. Mus.*, XIV, 1891, 554, Socorro Island.
3273. *Eupomacentrus adustus* (Troschel).
Cuba.
Pomacentrus adustus Troschel, in J. W. von Müller's *Reisen in den Vereinigten Staaten, Canada und Mexico*, III, 1865, 633, Mexico.
Pomacentrus obscuratus Poey, *Enumeratio*, 1876, 101, Habana.
3274. *Eupomacentrus rectifrænum* (Gill). *Pescado azul de dos colores*.
Pacific coast of America from Cape San Lucas to Panama; common.
Pomacentrus rectifrænum Gill, *Proc. Acad. Nat. Sci. Phila.*, XIV, 1862, 148, Cape San Lucas, Lower California.
Pomacentrus analigutta Gunther, *Cat.*, IV, 1862, 27, Cape San Lucas.
3275. *Eupomacentrus flavilatus* (Gill). *Pescado azul de dos colores*.
Pacific coast of America, from Cape San Lucas to Mazatlan and beyond.
Pomacentrus flavilatus Gill, *Proc. Acad. Nat. Sci. Phila.*, XIV, 1862, 148, Cape San Lucas, Lower California.
3276. *Eupomacentrus nepenthe* Nichols.
Bahamas.
Eupomacentrus nepenthe Nichols, *Amer. Mus. Novitates*, XXVI, 1921, 1, fig. 1, Bahamas.
- Genus 1156. *NEXILARIUS* Gilbert.
Nexilarius Gilbert, in Jordan and Evermann, *Check List*, 1895, 512 (*Euschistodus concolor* Gill); misprinted *Nexilaris*.
3277. *Nexilarius concolor* (Gill).
Panama.
Euschistodus concolor Gill, *Proc. Acad. Nat. Sci. Phila.*, XIV, 1862, 145, Panama.
- Genus 1157. *ABUDEFDUF*⁵¹ Forskål. *Pintanos*.
Abudefduf Forskål, *Descr. Anim.*, etc., 1775, 59 (*Chætodon sordidus* Forskål).
Glyphisodon Lacépède, *Hist. Nat. Poiss.*, IV, 1803, 542 (*Chætodon saxatilis* Linnæus).
Euschistodus Gill, *Proc. Acad. Nat. Sci. Phila.*, XIV, 1862, 145 (*E. declivifrons* Gill).

⁵¹ The small brilliantly colored species of coral reefs in the South Seas constituting the genus *Chrysoptera* Swainson are probably separable from *Abudefduf*.

- 3278. *Abudefduf marginatus* (Bloch).** *Pintano; Cow pilot; Jaqueta; Mojarra*
ravado; Demoiselle
 Atlantic coast of tropical America, West Indies, to Brazil; once reported
 from Newport, R. I.
Jaguacanguare Marcgrave, Hist. Brazil, 1648, 156, Brazil
Chætodon marginatus Bloch, Ichthyol., III, 1787, 98, Martinique;
 after Plumier.
Chætodon sargoides Lacépède, Hist. Nat. Poiss., IV, 1803, 452, Mar-
 tinique.
Glyphisodon moucharra Lacépède, loc. cit., 542, Brazil.
Glyphidodon sazaatilis of authors, not of Linnæus, an Asiatic species.
 ?*Chætodon mauritii* Bloch, Naturgesch. Ausl. Fische, III, 1787, 109,
 Brazil, on a drawing by Prince Maurice. A doubtful species,
 apparently the same as *A. marginatus*.
- 3279. *Abudefduf troschelii* (Gill).**
 Pacific coast of Mexico; Cape San Lucas; Socorro Island; Cocos
 Islands; Galapagos.
Glyphidodon troschelii Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862,
 150, Cape San Lucas.
- 3280. *Abudefduf declivifrons* (Gill).**
 Pacific coast of tropical America, from Cape San Lucas southward.
Euschistodus declivifrons Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862,
 145, 146, Cape San Lucas.
- 3281. *Abudefduf analogus* (Gill).**
 Atlantic coast of Central America.
Euschistodus analogus Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 220,
 Aspinwall.
- 3282. *Abudefduf taurus* (Müller and Troschel).** *Dovetail fish.*
Tortugas; Barbados.
Glyphidodon taurus Müller and Troschel, in Schomburgk, Hist. Bar-
 bados, 1848, 674, Barbados.
- Genus 1158. **CENTROCHROMIS** Norman.
Centrochromis Norman, Ann. Mag. Nat. Hist., ser. 9, IX, 1922, 534
 (*Glyphidodon rudis* Poey.)
- 3283. *Centrochromis rudis* (Poey).**
 Cuba.
Glyphidodon rudis Poey, Memorias, II, 1861, 191, Cuba.
- Genus 1159. **HYPSTYPOPS** Gill. *Garibaldi.*
Hypsypops Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 165 (*Gly-
 phisodon rubicundus* Girard).
- 3284. *Hypsypops rubicundus* (Girard).** *Garibaldi; Sea goldfish; a magnificent
 and hardy aquarium fish.*
 Coast of California south of Monterey; abundant about Santa Catalina
 Island.
Glyphisodon rubicundus Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854,
 148, Monterey, Calif.
- Genus 1160. **STEGASTES** Jenyns.
Stegastes Jenyns, Voy. Beagle, Fishes, 1842, 63 (*S. imbricatus* Jenyns).
Microspathodon Gunther, Cat., IV, 1862, 35 (*Glyphidodon chrysurus*
 Cuvier and Valenciennes).
Pomataprion Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 214, 216
 (*Hypsypops dorsalis* Gill).
- 3285. *Stegastes chrysurus* (Cuvier and Valenciennes).**
Tortugas; West Indies; Cuba and St. Thomas.
Glyphisodon chrysurus Cuvier and Valenciennes, Hist. Nat. Poiss., V,
 1830, 356 (476), St. Thomas.
Pomacentrus denegatus Poey, Memorias, II, 1861, 190, Cuba.
- 3286. *Stegastes bairdii* (Gill).**
 Pacific coast of tropical America, from Cape San Lucas to Panama.
Pomacentrus bairdii Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 149,
 Cape San Lucas.

3287. *Stegastes niveatus* (Poey).
Cuba.
Pomacentrus niveatus Poey, Enumeratio, 1876, 102, Habana.
3288. *Stegastes dorsalis* (Gill).
Pacific coast of America, from Cape San Lucas to Mazatlan.
Hyssypops dorsalis Gill, Proc. Acad. Nat. Sci. Phila. XIV, 1862, 147, Cape San Lucas; young
Pomacentrus quadrigutta Gill, loc. cit., 149, Cape San Lucas
Microspathodon cinereus Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 71, Clarion and Socorro Islands
Microspathodon czurissimus Jordan and Starks, in Jordan, Proc. Calif. Acad. Sci., 2d ser., V, 1895, 478, pl. 44, Venados Islands, near Mazatlan; adult.

Family 250. CICHLIDÆ.⁸² Mojarras de rio

Genus 1161. CICHLAURUS Swainson.

Cichlaurus Swainson, Nat. Hist. Classn. Fishes, etc., II, 1839, 173, definition, but no type named; this is given on p. 230, where, without assigned reason, the name is changed to *Cichlasoma*.

Cichlasoma Swainson, Nat. Hist., etc., loc. cit., 230 (*Labrus punctatus* Bloch).

Heros Heckel, Natterers Reise, II, 1840, 362 (*Heros severus* Heckel).

3289. *Cichlaurus bifasciatus* (Steindachner).
Mexico.
Heros bifasciatus Steindachner, Denks. Ak. Wiss. Wien, XXIII, 1864, 60, pl. II, Mexico.
3290. *Cichlaurus angulifer* (Gunther).
East slope of Guatemala.
Heros angulifer Gunther, Cat., IV, 1862, 298, River de Santa Isabel, Guatemala.
3291. *Cichlaurus microphthalmus* (Gunther).
Rio Motagua, Guatemala
Heros microphthalmus Gunther, Cat., IV, 1862, 295, Rio Motagua, Guatemala.
3292. *Cichlaurus guttulatus* (Gunther).
Pacific drainage of Guatemala.
Heros guttulatus Gunther, Proc. Zool. Soc. Lond., 1864, 152, Lake Amatitlan, Guatemala.
3293. *Cichlaurus meeki* (Hildebrand). *Mojarra; Mojarra negra; Mojarra plateada*.
Lakes and rivers of El Salvador, Pacific slope of Central America.
Cichlasoma meeki Hildebrand, Bull. U. S. Bur. Fish., XLI, 1925, 275, fig. 20, Lake Guiga, El Salvador.
3294. *Cichlaurus melanurus* (Gunther).
Lake Peten, Guatemala.
Heros melanurus Günther, Cat., IV, 1862, 288, Lake Peten, Guatemala.
3295. *Cichlaurus fenestratum* (Gunther).
Atlantic slope of southern Mexico.
Chromis fenestrata Günther, Proc. Zool. Soc. Lond., 1860, 318, Mexico.
3296. *Cichlaurus godmanni* (Günther).
Atlantic slope of Guatemala.
Heros godmanni Günther, Cat., IV, 1862, 296, Rio Cahabon, Guatemala.
3297. *Cichlaurus intermedius* (Gunther).
Lake Peten, Guatemala
Heros intermedius Günther, Cat., IV, 1862, 298, Lake Peten, Guatemala.
3298. *Cichlaurus deppii* (Heckel).
Mexico.
Heros deppii Heckel, Ann. Wiener Mus., II, 1840, 382, Mexico.

⁸² The many species of this genus in the Mexican region are chiefly the overflow from the vast Brazilian fauna. The larger genera as here recognized are very closely related and were recently regarded as subgenera of *Cichlasoma* (*Cichlaurus*) = *Heros* Heckel; several of the species are only provisionally located and a few (*godmanni*, *hedricki*, *lentiginosus*) may represent new groups not yet defined.

3299. *Cichlaurus calobrensis* (Meek and Hildebrand).
Streams of Panama
Cichlasoma calobrense Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X, 1913, 90, Rio Calobra, Panama.
3300. *Cichlaurus umbrifer* (Meek and Hildebrand).
Rivers of Panama
Cichlasoma umbriferum Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X, 1913, 88, Rio Cupe, Cituro, Panama.
- Genus 1162. *THERAPS* Günther.
Theraps Günther, Cat., IV, 1862, 284 (*T. irregularis* Günther).
? *Baiodon* Agassiz, Proc. Bost. Soc. Nat. Hist., VI, 1858, 401 (*B. fasciatus* Agassiz); scanty description; said to be slender as in the Sparoid genus *Boops* or *Box*.
3301. *Theraps irregularis* Günther.
Atlantic slope of Guatemala and southern Mexico.
Theraps irregularis Günther, Cat., IV, 1862, 284, Guatemala.
3302. *Theraps mojarra* (Meek).
Pacific slope of Isthmus of Tehuantepec.
Cichlasoma mojarra Meek, Field Mus., Zool., V, 1904, 93, 217, San Geronimo, Oaxaca, Mexico.
3303. *Theraps nebulifer* (Günther).
Atlantic lowland streams of the Isthmus of Tehuantepec.
Heros nebulifer Günther, Proc. Zool. Soc. Lond., 1860, 318, Mexico.
3304. *Theraps gibbiceps* (Steindachner).
Rivers of Tabasco, Mexico.
Heros gibbiceps Steindachner, Denks. Ak. Wiss. Wien, XXIII, 1864, 66, Pl. V, figs. 1 and 2, Rio Teapa, Tabasco, Mexico.
3305. *Theraps zonatus* (Meek).
Pacific slope of Isthmus of Tehuantepec, Mexico.
Cichlasoma zonatum Meek, Proc. Biol. Soc. Wash., XVIII, 1905, 245, Niltpec, Oaxaca, Mexico.
Baiodon fasciatus Agassiz, Proc. Bost. Soc. Nat. Hist., VI, 1858, 408, Lake Nicaragua.
3306. *Theraps eigenmanni* (Meek).
Rio Tehuacan, Mexico
Cichlasoma eigenmanni Meek, Field Col. Mus., Zool., III, 1902, 119, Rio Tehuacan, Mexico.
3307. *Theraps teapæ* (Evermann and Goldsborough).
Rio Teapa, Mexico.
Cichlasoma teapæ Evermann and Goldsborough, Bull. U. S. Fish Com., XXI, 1901, 156, fig. 6, Rio Teapa, Mexico.
3308. *Theraps frontalis* (Meek).
Turrubales, Costa Rica.
Cichlasoma frontale Meek, Field Col. Mus., Zool., VIII, 1909, 210, Turrubales, Costa Rica.
3309. *Theraps punctatum* (Meek).
Buenos Aires de Terraba, Costa Rica.
Cichlasoma punctatum Meek, Field Mus. Nat. Hist., Zool., VII, 1909, 210, Buenos Aires de Terraba, Costa Rica; name preoccupied in *Cichlasoma* but not in *Theraps*.
Theraps terrabæ Jordan and Evermann, Proc. Calif. Acad. Sci., 4th ser., XVI, Apr. 27, 1927, 507, substitute for *Cichlasoma punctatum* Meek, preoccupied.
3310. *Theraps gadovii* (Regan).
Atlantic slope of southern Mexico.
Cichlosoma gadovii Regan, Ann. Mag. Nat. Hist., 1905, 232, Motozongongo, Mexico.
3311. *Theraps milleri* (Meek).
El Rancho, Guatemala.
Cichlasoma milleri Meek, Field Mus. Nat. Hist., Zool., VII, 1907, 142, El Rancho, Guatemala.

3312. *Theraps balteatus* (Gill and Bransford).
Great Lakes of Nicaragua.
Heros balteatus Gill and Bransford, Proc. Acad. Nat. Sci. Phila., XXIX, 1877, 184, Lake Nicaragua.
3313. *Theraps nicaraguensis* (Gunther).
Great Lakes of Nicaragua.
Heros nicaraguensis Gunther, Proc. Zool. Soc. Lond., 1864, 153, Lake Nicaragua.
3314. *Theraps nigritus* (Meek).
Lake Nicaragua.
Cichlasoma nigritum Meek, Field Mus. Nat. Hist., Zool., VII, 1907, 128, Lake Nicaragua.
3315. *Theraps lentiginosus* (Steindachner).
Rivers of Mexico
Heros lentiginosus Steindachner, Denks. Akad. Wiss. Wien, XXIII, 1864, 62, Pl. III, fig. 1, Mexico
- Genus 1163. **PARAPETENIA** Regan.
Hypsophrys Agassiz, Proc., Bost. Soc. Nat. Hist., VI, 1858, 401 (*H. unimaculatus* Agassiz); no description except that it resembles *Chrysophrys* (*Sparus*) and has a large round black spot on the shoulder; lakes of Nicaragua.
? *Parachromis* Agassiz, Proc., Bost. Soc. Nat. Hist., VI, 1858, 401 (*P. gulosus* Agassiz); not described but said to resemble *Dentex*; lakes of Nicaragua.
Parapetenia Regan, Ann. Mag. Nat. Hist., XVI, 7th ser., 1905, 324 (*Acara adpersum* Gunther).
3316. *Parapetenia adpersa* (Gunther).
Barbados.
Acara adpersum Günther, Cat., IV, 1862, 282, Barbados.
3317. *Parapetenia dovii* (Gunther).
Great Lakes of Nicaragua.
Heros dovii Gunther, Proc. Zool. Soc. Lond., 1864, 154, Lake Nicaragua.
3318. *Parapetenia managuense* (Gunther).
Great Lakes of Nicaragua.
Heros managuensis Günther, Trans. Zool. Soc. Lond., VI, 1868 (Nov. 27), 392, 463, pl. 77, fig. 3, Lake Managua, Nicaragua.
3319. *Parapetenia motaguensis* (Gunther).
Atlantic slope of Guatemala.
Heros motaguensis Günther, Trans. Zool. Soc. Lond., VI, 1868 (Nov. 27), 391, 462, pl. 77, fig. 2, Lake Motagua, Guatemala.
3320. *Parapetenia friedrichstahli* (Heckel).
Lake Peten, Guatemala.
Heros friedrichstahl Heckel, Ann. Mus. Wien, II, 1840, 381, Lake Peten, Guatemala.
3321. *Parapetenia multifasciata* (Regan).
Guatemala; British Honduras.
Cichlasoma multifasciatum Regan, Ann. Mag. Nat. Hist., 7th ser., XVI, 1905, 335, Lake Peten, Guatemala.
3322. *Parapetenia salvini* (Günther).
Atlantic slope of southern Mexico to Guatemala.
Heros salvini Gunther, Cat., IV, 1862, 294, Rio de Santa Isabel, Guatemala.
Heros triagramma Steindachner, Denkschr. Akad. Wiss. Wien, XXIII, 1864, 70, Taf. 3, fig. 2, central Mexico.
3323. *Parapetenia urophthalma* (Gunther).
Atlantic slope of southern Mexico to Guatemala; British Honduras and Yucatan.
Heros urophthalmus Günther, Cat., IV, 1862, 291, Lake Peten.
3324. *Parapetenia istlana* (Jordan and Snyder).
Rio Balsas, Mexico.
Heros istlanus Jordan and Snyder, Bull. U. S. Fish Com., XIX, 1899, 144, fig. 21, Rio Ixtla at Puente de Ixtla, Mexico.

3325. *Parapetenia tetracantha* (Cuvier and Valenciennes). *Viajaca*.
Rivers of Cuba.
Centrarchus tetracanthus Cuvier and Valenciennes, Hist. Nat. Poiss., VII, 1831, 346 (460), Habana.
Chromis fusco-maculatus Guichenot, in Ramon de la Sagra, Hist. Ile Cuba, Poiss., 1853, 78, pl. 2, fig. 3, Habana.
3326. *Parapetenia tetracantha torralbasi* (Eigenmann).
Cuba; Calabazar, Almendares River; San Cristobal; Los Palacios.
Heros tetracanthus torralbasi Eigenmann, Bull. U. S. Fish Com., XXII, 1902, 230, fig. 11, Calabazar, Cuba.
3327. *Parapetenia tetracantha grisea* (Eigenmann).
San Antonio, Cuba.
Heros tetracanthus griseus Eigenmann, Bull. U. S. Fish Com., XXII, 1902, 233, San Antonio, Cuba.
3328. *Parapetenia tetracantha lata* (Eigenmann).
San Juan, Cuba.
Heros tetracanthus latus Eigenmann, Bull. U. S. Fish Com., XXII, 1902, 234, San Juan, Cuba.
3329. *Parapetenia tetracantha cincta* (Eigenmann).
Paso Real, Cuba.
Heros tetracanthus cinctus Eigenmann, Bull. U. S. Fish Com., XXII, 1902, 234, fig. 16, Paso Real, Cuba.
3330. *Parapetenia parma* (Gunther).
Mexico and Guatemala.
Heros parma Gunther, Cat., IV, 1862, 285, Mexico and Guatemala.
3331. *Parapetenia nigricans* (Eigenmann).
Pinar del Rio, Cuba.
Heros nigricans Eigenmann, Bull. U. S. Fish Com., XXII, 1902, 235, fig. 17, Pinar del Rio, Cuba.
3332. *Parapetenia steindachneri* (Jordan and Snyder).
Lower portion of the basin of the Rio Panuco and Rio Verde, Mexico.
Cichlasoma steindachneri Jordan and Snyder, Bull. U. S. Fish Com., XIX, 1899, 143, fig. 20, Rio Verde, Mexico.
3333. *Parapetenia bartoni* (Bean).
Upland portion of the Rio Verde in San Luis Potosi, Mexico.
Acara bartoni Bean, Proc. U. S. Nat. Mus., XV, 1892, 286, Pl. XLIV, fig. 3, Huasteca Potosina, San Luis Potosi, Mexico.
3334. *Parapetenia labridens* (Pellegrin).
Upland portion of the Rio Verde in San Luis Potosi, Mexico.
Heros labridens Pellegrin, Bull. Mus. Hist. Nat. Paris, 1903, 122, Huasteca, Potosi, Mexico.
3335. *Parapetenia beani* (Jordan). *Mojarra verde*.
Lowland streams of Sinaloa and Jalisco.
Heros beani Jordan, Proc. U. S. Nat. Mus., XI, 1888, 332, Rio Presidio, near Mazatlan, Mexico.
3336. *Parapetenia tenuis* (Meek).
Atlantic slope of the isthmus of Tehuantepec; Achatol; Vera Cruz, Mexico.
Cichlasoma tenue Meek, Field Mus. Nat. Hist., Zool., VII, 1906, 94, Achatol, Vera Cruz, Mexico.
3337. *Parapetenia centralis* (Meek).
Pacific slope of Guatemala; Caballo Blanco.
Cichlasoma centrale Meek, Field Mus. Nat. Hist., Zool., VII, 1906, 94, Caballo Blanco, Guatemala.
3338. *Parapetenia alfari* (Meek).
Atlantic slope of Costa Rica; Turrialba.
Cichlasoma alfari Meek, Field Mus. Nat. Hist., Zool., VII, 1907, 148, Turrialba, Costa Rica.
3339. *Parapetenia mento* (Vaillant and Pellegrin).
Southern Mexico.
Heros mento Vaillant and Pellegrin, Bull. Mus. Hist. Nat. Paris, 1902, 88, Rio Negro, southern Mexico.

3340. *Parapetenia trimaculata* (Günther).
Pacific coast streams of southern Mexico and Guatemala.
Heros trimaculatum Gunther, Trans. Zool. Soc. Lond., VI, 1868, 461,
pl. 76 (Nov. 27), Chiapam and Huamuchal, Mexico.
- Genus 1164. *ARCHOCENTRUS* Gill.
Archocentrus Gill, Proc. Acad. Nat. Sci. Phila., XXIX, 1877, 186
(*Heros centrarchus* Gill and Bransford).
3341. *Archocentrus centrarchus* (Gill and Bransford).
Great Lakes of Nicaragua.
Heros centrarchus Gill and Bransford, Proc. Acad. Nat. Sci. Phila.,
XXIX, 1877, 185, Lake Nicaragua.
3342. *Archocentrus nigrofasciatus* (Günther).
Lakes Amatitlan and Atitlan, Guatemala.
Heros nigrofasciatus Günther, Trans. Zool. Soc. Lond., VI, 1868, 391,
452, pl. 74, fig. 3, Lakes Amatitlan and Atitlan.
3343. *Archocentrus spilurus* (Günther).
Rio Motagua and Lake Isabel, Guatemala.
Heros spilurus Günther, Cat., IV, 1862, 289, Lake Yzabal, Guatemala.
3344. *Archocentrus spinosissimus* (Vaillant and Pellegrin).
Rio Palochic, Guatemala.
Heros (Cichlasoma) spinosissimus Vaillant and Pellegrin, Bull. Mus.
Hist. Nat. Paris, 1902, 87, Rio Palochic, Guatemala.
3345. *Archocentrus immaculatus* (Pellegrin).
Rio Palochic, Guatemala.
Cichlasoma spinosissimum immaculatum Pellegrin, Mém. Soc. Zool.
France, XVI, 1903, 225, Rio Palochic, Guatemala.
- Genus 1165. *ASTATHEROS*⁸³ Pellegrin.
Astatheros Pellegrin, Mém. Soc. Zool. France, 1833, 205 (*Heros hetero-*
dontus Vaillant and Pellegrin).
Erythrictithys Meek, Field Mus. Nat. Hist., Zool., VII, 1907, 118, 121
(*Heros citrinellus* Günther); name twice preoccupied as *Erythrictithys*.
3346. *Astatheros heterodontus* (Vaillant and Pellegrin).
Isthmus of Tehuantepec, Mexico.
Heros heterodontus Vaillant and Pellegrin, Bull. Mus. Nat. Hist., Paris,
1902, 86, Isthmus of Tehuantepec.
3347. *Astatheros evermanni* (Meek).
Pacific slope of Isthmus of Tehuantepec.
Cichlasoma evermanni Meek, Field Col. Mus. Zool., V, 1904, 214, fig.
70, Rio Tehuantepec, Tehuantepec, Mexico.
3348. *Astatheros robertsoni* (Regan).
British Honduras.
Cichlasoma robertsoni Regan, Ann. Mag. Nat. Hist., ser. 7, XVI,
1905, 239, Stann Creek, British Honduras.
3349. *Astatheros lethrinus* (Regan).
Rio Iroquois, Costa Rica.
Cichlasoma lethrinus Regan, Ann. Mag. Nat. Hist., ser. 8, II, 1908, 462,
Rio Iroquois, Costa Rica.
3350. *Astatheros dorsatus* (Meek).
Lake Managua, Nicaragua.
Cichlasoma dorsatum Meek, Field Col. Mus. Nat. Hist., Zool., VII,
1907, 123, Lake Managua.
3351. *Astatheros longimanus* (Günther).
Lake Nicaragua.
Heros longimanus Günther, Trans. Zool. Soc. Lond., VI, 1868 (Nov. 27),
391, 453, pl. 72, fig. 2, Lake Nicaragua.
3352. *Astatheros altifrons* (Kner and Steindachner).
Panama and Colombia.
Heros altifrons Kner and Steindachner, Sitz. Bayer. Akad., 1863, 223,
Colombia.

⁸³ This group is usually united with the two large-lipped species *labriatus* and *lobochilus*, to which the name *Amphilophus* was given earlier. *Citrinellus* and *Erythræus* seem intermediate.

3353. *Astatheros lauræ* (Regan).
Tampico, Mexico.
Cichlasoma lauræ Regan, Ann. Mag. Nat. Hist., 8th ser., 2, 1908, 223,
Tampico, Mexico.
3354. *Astatheros margaritifer* (Günther).
Lake Peten, Guatemala.
Heros margaritifer Günther, Cat., IV, 1862, 287, Lake Peten.
Heros melanopogon Steindachner, Denks. Akad. Wiss. Wien, XXIII,
1864, 72, pl. 1, fig. 3, Central America.
3355. *Astatheros sexfasciatus* (Regan).
Guapote, Mexico.
Cichlosoma sexfasciatum Regan, Ann. Mag. Nat. Hist., (7), XVI, 1905,
230, Guapote, Mexico.
3356. *Astatheros septemfasciatus* (Regan).
Costa Rica.
Cichlosoma septemfasciatum Regan, Ann. Mag. Nat. Hist., II, ser. 8,
1908, 461, Rio Iroquois, Costa Rica.
3357. *Astatheros basilaris* (Gill and Bransford).
Lake Nicaragua.
Heros basilaris Gill and Bransford, Proc. Acad. Nat. Sci. Phila., XXIX,
1877, 182, Lake Nicaragua.
3358. *Astatheros rectangularis* (Steindachner).
Mexico.
Acara rectangulare Steindachner, Chromiden Mejicos, 1864, pl. 1, fig. 1,
1, Mexico.
3359. *Astatheros maculicauda* (Regan).
Atlantic slope of Guatemala and Panama.
Cichlosoma maculicauda Regan, Ann. Mag. Nat. Hist., XVI, ser. 7,
1905, 227, Lake Yzabal, Rio Motagua, and Rio Chagres.
3360. *Astatheros tuyrensis* (Meek and Hildebrand).
Rivers of Panama.
Cichlasoma tuyrensis Meek and Hildebrand, Field Mus. Nat. Hist.,
Zool., X, 1913, 89, Rio Tuyra, Boca de Cupa, Panama.
3361. *Astatheros oblongus* (Günther).
Rio Motagua; Guatemala.
Heros oblongus Günther, Trans. Zool. Soc. Lond., VI, 1868 (Nov. 27),
392, 464, Rio Motagua, Guatemala.
3362. *Astatheros montezuma* (Heckel).
Mexico.
Heros montezuma Heckel, Ann. Wiener Mus., II, 1840, 382, Mexico.
3363. *Astatheros globosum* (Miller).
Puerto Barrios, Guatemala.
Cichlasoma globosum Miller, Bull. Amer. Mus. Nat. Hist., XXIII,
1907, 114, fig. 4, Puerto Barrios, Guatemala.
3364. *Astatheros rostratum* (Gill and Bransford).
Great Lakes of Nicaragua.
Heros rostratus Gill and Bransford, Proc. Acad. Nat. Sci. Phila., XXIX,
1877, 181, Lake Nicaragua.
3365. *Astatheros hedricki* (Meek).
Large Atlantic slope rivers of Mexico, south of Vera Cruz.
Cichlasoma hedricki Meek, Field Col. Mus., Zool., V, 1904, 208, fig. 66,
Obispo, Vera Cruz, Mexico.
3366. *Astatheros octofasciatus* (Regan).
Atlantic slope, Isthmus of Tehuantepec to British Honduras.
Heros octofasciatus Regan, Ann. Mus. Hist. Nat. Geneva, Rev. Suisse,
Zool., 1903, 417, pl. 13, fig. 1, Mexico.
3367. *Astatheros granadense* (Meek).
Lake Nicaragua.
Cichlasoma granadense Meek, Field Mus. Nat. Hist., Zool., VII, 1907,
121, Lake Nicaragua, Nicaragua, Granada.

3368. *Astatheros citrinellus* (Günther).
Great Lakes of Nicaragua.
Heros citrinellus Gunther, Proc. Zool. Soc. Lond., 1864, 153, Lake Nicaragua.
3369. *Astatheros erythræum* (Günther).
Great lakes of Nicaragua.
Heros erythræus Gunther, Trans. Zool. Soc. Lond., VI, 1868 (Nov. 27), 391, 457, pl. 75, fig. 2, Lake Managua
- Genus 1166. **AMPHILOPHUS** Agassiz.
Amphilophus Agassiz, Proc. Bost. Soc. Nat. Hist., VI, 1858, 401 (*A. fraebeli* Agassiz); a large-lipped species from Lake Nicaragua not otherwise described, probably *labiatus*; these species, *labiatus* and *lobochilus*, have been placed in *Astatheros*, but the name *Amphilophus* has priority
3370. *Amphilophus labiatus* (Günther).
Great lakes of Nicaragua.
Heros labiatum Gunther, Proc. Zool. Soc. Lond., 1864, 27, Pl. IV, fig. 1, Lake Nicaragua.
3371. *Amphilophus lobochilus* (Günther).
Lake Managua, Nicaragua.
Heros lobochilus Gunther, Trans. Zool. Soc. Lond., VI, 1868 (Nov. 27), 391, 457, pl. 75, fig. 1, Lake Managua, Nicaragua.
- Genus 1167. **THORICHTHYS** Meek.
Thorichthys Meek, Field Col. Mus., Zool., V, 1904, 222 (*T. ellioti* Meek).
3372. *Thorichthys ellioti* Meek.
Atlantic slope of Vera Cruz to Guatemala.
Thorichthys ellioti Meek, Field Col. Mus., Zool., V, 1904, 223, Motzongongo, Vera Cruz, Mexico.
3373. *Thorichthys callolepis* (Regan).
Atlantic slope of Isthmus of Tehuantepec, Mexico.
Heros callolepis Regan, Ann. Mag. Nat. Hist., ser. 7, XIII. 1904, 258. San Domingo de Guzman, Mexico.
3374. *Thorichthys aureus* (Günther).
Atlantic slope, Vera Cruz, Mexico, to Guatemala.
Heros aureus Gunther, Cat., IV, 1862, 292, Lake Yzabal, Guatemala.
3375. *Thorichthys affinis* (Günther).
Lake Peten, Guatemala.
Heros affinis Gunther, Cat., IV, 1862, 292, Lake Peten.
3376. *Thorichthys acutus* (Miller).
Small tributaries of the Rio Motagua, Guatemala.
Cichlasoma acutum Miller, Bull. Amer. Mus. Nat. Hist., XXIII, 1907, 117, fig. 6. Rio Tenedores, Guatemala.
3377. *Thorichthys helleri* (Steindachner).
Lowland streams of Mexico emptying into the Gulf south of Vera Cruz.
Heros helleri Steindachner, Denks. Akad. Wiss. Wien, XXIII, 1864, 64, Pl. IV, fig. 1, Rio Teapa, Tabasco, Mexico.
Heros maculipinnis Steindachner, loc. cit., 69, Pl. IV, fig. 2, Rio Zanopa, Mexico.
- Genus 1168. **HERICHTHYS** Baird and Girard.
Herichthys Baird and Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 25 (*H. cyanoguttatus* Baird and Girard).
3378. *Herichthys cyanoguttatus* Baird and Girard.
East slope of Mexico from Rio Grande to Rio Panuco.
Herichthys cyanoguttatus Baird and Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 25, Rio Grande, Brownsville, Tex.
Heros teporatus Fowler, loc. cit., LV, 1903, 321, Victoria, Tamaulipas.
3379. *Herichthys pavonaceus* (Garman).
Spring near Monclova, Coahuila, Mexico.
Heros pavonaceus Garman, Bull. Mus. Comp. Zool., VIII, 1881, 93, spring near Monclova, Coahuila, Mexico.

- 3380. *Herichthys bocourti*** (Vaillant and Pellegrin).
Lake Isabel, Guatemala
Neotroplus bocourti Vaillant and Pellegrin, Bull. Mus. Hist. Nat., Paris, 1902, 85, Lake Isabel, Guatemala
- 3381. *Herichthys carpintis*** (Jordan and Snyder).
Rio Panuco, Mexico, and its lowland tributaries.
Neotroplus carpintis Jordan and Snyder, Bull. U. S. Fish Com., XIX, 1899, 146, fig. 22, Laguna de Carpinte, Tampico, Mexico.
- 3382. *Herichthys troscheli*** (Steindachner).
Mexico.
Heros troscheli Steindachner, Ichthyologische Notizen, IV, 1867, 12, Mexico.
- Genus 1169. **TOMOCICHLA** Regan.
Tomocichla Regan, Ann. Mag. Nat. Hist., II, ser. 8, 1908, 463 (*Herichthys underwoodi* Regan)
- 3383. *Tomocichla underwoodi*** (Regan).
Costa Rica.
Herichthys underwoodi Regan, Biol. Central Amer., Pisces, 1908, 30, Costa Rica.
- 3384. *Tomocichla geddesi*** (Regan).
Southern Mexico.
Herichthys geddesi Regan, Ann. Mag. Hist., XVI, ser. 7, 1905, 436, southern Mexico.
- Genus 1170. **PETENIA** Günther.
Petenia Günther, Cat., IV, 1862, 301 (*P. splendida* Günther).
- 3385. *Petenia splendida*** Günther.
Lake Peten, Guatemala; Montecristo; Frontera.
Petenia splendida Günther, Cat., IV, 1862, 301, Lake Peten, Guatemala.
- Genus 1171. **PARANEETROPLUS** Regan.
Paraneetroplus Regan, Ann. Mag. Nat. Hist., XVI, ser. 7, 1905, 436 (*P. bulleri* Regan).
- 3386. *Paraneetroplus bulleri*** Regan.
Rio de Sarabia, Mexico,
Paraneetroplus bulleri Regan, Ann. Mag. Nat. Hist., XVI, ser. 7, 1905, 437, Rio de Sarabia, Mexico.
- Genus 1172. **NEETROPLUS** Günther.
Neetroplus Günther, Trans. Zool. Soc. Lond. VI, 1866, 469 (*N. nematopus* Günther).
- 3387. *Neetroplus sieboldii*** (Kner and Steindachner).
New Granada, and from the Pacific slope of Panama
Heros sieboldii Kner and Steindachner, Abhandl. Bayer Akad. Wiss., X, 1864, 13, pl. 2, fig. 2, Panama, Colombia.
- 3388. *Neetroplus nematopus*** Günther.
Great lakes of Nicaragua.
Neetroplus nematopus Günther, Trans. Zool. Soc. Lond., VI, 1868 (Nov. 27), 392, 470, pl. 74, fig. 4, Lake Managua.
- Genus 1173. **HEROTILAPIA** Regan.
Herotilapia Regan, Ann. Mag. Nat. Hist., V, 38 (*Tilapia buettikoferi* Boulenger).
- 3389. *Herotilapia multispinosa*** (Günther).
Great lakes of Nicaragua.
Heros multispinosus Günther, Trans. Zool. Soc. Lond., VI, 1868 (Nov. 27), 391, 453, pl. LXXIV, fig. 2, Lake Managua.
- Genus 1174. **ÆQUIDENS** Eigenmann and Bray.
Æquidens Eigenmann and Bray, Ann. N. Y. Acad. Sci., 1894, 616 (*Acara tetramerus* Heckel).
- 3390. *Æquidens cœruleopunctata*** (Kner and Steindachner).
Panama to northwest Ecuador.
Acara cœruleopunctata Kner and Steindachner, Sitz. Bayer. Akad., 1863, 222, northwest Ecuador.

Genus 1175. **GEOPHAGUS** Heckel.

Geophagus Heckel, Ann. Mus. Wien, II, 1840, 383 (*G. magasema* Heckel = *Sparus surinamensis* Bloch)

Mesops Gunther, Cat., IV, 1862, 311 (*Geophagus cupido* Heckel).

Satanoperca Gunther, loc. cit., 312 (*Geophagus demon* Heckel).

Subgenus **SATANOPERCA** Günther.3391. *Geophagus crassilabris* Steindachner

Panama.

Geophagus (*Satanoperca*) *crassilabris* Steindachner, Sitz. Akad. Wiss. Wien, 1876, 74, 65, Pl. VII, Panama.

Order UU. **PHARYNGOGNATHI**Family 251. **LABRIDÆ**Genus 1176. **CENTROLABRUS** Gunther, *Rock cooks*.

Centrolabrus Gunther, Cat., IV, 1862, 92 (*Labrus exoletus* Linnæus).

3392. *Centrolabrus exoletus* (Linnæus). *Rock cook*.

Coast of northern Europe south to Cornwall; Greenland.

Labrus exoletus Linnæus, Syst. Nat., Ed. X, 1758, 287, Atlantic Ocean.

Labrus pentacanthus Lacépède, Hist. Nat. Poiss., III, 1803, 503; after Linnæus

Crenilabrus microstoma Couch, in Thompson, Proc. Zool. Soc. London, 1837, 55, Cornwall

Genus 1177. **TAUTOGOLABRUS** Gunther, *Cunners*

Tautogolabrus Günther, Cat., IV, 1862, 89 (*Ctenolabrus bergall* Günther = *Labrus adpersus* Walbaum)

3393. *Tautogolabrus adpersus* (Walbaum). *Cunner; Chogset, Blue perch; Bergall; Berg-gyll; Nibbler; Conner; Gall Bengal*.

Atlantic coasts of North America from Labrador to Sandy Hook.

Labrus adpersus Walbaum, Artedi Piscium, 1792, 254, no locality; after Bergall of Schöpf.

Tautoga niger Mitchill, Report, in part, in Fishes of New York, 1814, 23, New York.

Tautoga cerulea Mitchill, Report, loc. cit., 1814, 24, New York.

Labrus chogset Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 402, pl. 3, fig. 2, New York

Labrus chogset fulva Mitchill, loc. cit., 1815, 403, New York.

Ctenolabrus unnotatus Cuvier and Valenciennes, Hist. Nat. Poiss., XIII, 1839, 174 (239), New York.

Ctenolabrus bergall Günther, Cat., IV, 1862, 90, Canada.

Genus 1178. **TAUTOGA** Mitchill, *Tautogs*.

Hiatula Lacépède, Hist. Nat. Poiss., II, 1800, 522; name preoccupied.

Tautoga Mitchill, Rept. Fishes New York, 1814, 23 (*T. niger* Mitchill = *Labrus tautoga* Mitchill = *Labrus onitis* Linnæus).

3394. *Tautoga onitis* (Linnæus). *Tautog; Blackfish; Oysterfish; Tautoga; Smooth blackfish; Cub; Sea dog*.

Atlantic coast of United States; Cape Ann to Charleston.

Labrus onitis Linnæus, Syst. Nat., Ed. X, 1758, 286, locality unknown.

Labrus hiatula Linnæus, Syst. Nat., Ed. XII, 1766, 475, Carolinas

Labrus carolinus Bonnaterre, Tableau Encycloped. et Méthod., Ichthyologie, 1788, 113, Carolinas.

Labrus subfucus Walbaum, Artedi Pisc., 1792, 254; after Schöpf.

?*Labrus tassellatus* Bloch, Naturgesch. Ausl. Fische, VI, 1792, pl. 8, Norway.

Hiatula gardeniana Lacépède, Hist. Nat. Poiss., II, 1800, 522, Carolinas.

Labrus americanus Bloch and Schneider, Syst. Ichth., 1801, 261; after Schöpf.

Labrus tautoga Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 398, Long Island; Rhode Island; Cape Cod; Sandy Circle.

Tautoga fusca Mitchill, Rept. Fish. N. Y., 1814, 23, New York.

Tautoga rubens Mitchill, loc. cit., 23, New York.

Tautoga atia Mitchill, loc. cit., 23, New York.

Tautoga niger Mitchill, loc. cit., 23, New York.

Genus 1179. *ACHNOLAIMUS* Cuvier and Valenciennes. *Capitaines*.
Lachnolaimus Cuvier and Valenciennes, Hist. Nat. Poiss., XIII, 1839,
 200 (274) (*L. aigula* Cuvier and Valenciennes = *Labrus maximus*
 Walbaum).

Lachnolæmus Günther; corrected spelling.

3395. *Lachnolaimus maximus* (Walbaum). *Capitaine; Perro perro; Hogfish*.
 West Indies, north to Key West and the Bermudas.
Suillus Catesby, Nat. Hist. Carol., II, 1743, 15, pl. 15; no locality;
 probably Bahamas.
Labrus maximus Walbaum, Artedi Pisc., 1792, 261, no locality; after
 Catesby.
Lachnolaimus suillus Cuvier, Règne Animal, ed. 2, II, 1829, 257; after
 Catesby.
Lachnolaimus aigula Cuvier and Valenciennes, Hist. Nat. Poiss., XIII,
 1839, 202 (277), pl. 378, St. Bartholomew.
Lachnolaimus duæ Cuvier and Valenciennes, loc. cit., 208 (285), Mar-
 tinique.
Lachnolaimus caninus Cuvier and Valenciennes, loc. cit., 210 (288),
 St. Thomas; San Domingo.
Lachnolaimus psittacus Cuvier and Valenciennes, loc. cit., 212 (291);
 Porto Rico.

Genus 1180. *BODIANUS* Bloch.

Bodianus Bloch, Nat. Ausl. Fische, IV, 1790, 31, 33 (*B. bodianus*
 Bloch = *Labrus rufus* Linnaeus); in part; type by tautonymy; not by
 first restriction to species of *Cephalopholis*.
Harpe Lacépède, Hist. Nat. Poiss., IV, 1803, 426 (*H. carulcoareum*
 Lacépède = *Labrus rufus* Linnaeus).
Cossyphus Cuvier and Valenciennes, loc. cit., XIII, 1839, 102 (*Bodianus*
bodianus Bloch); name twice preoccupied.
Crenilabrus Swainson, Nat. Hist. Fish., Amphib., etc., II, 1839 (*Lutjanus*
verres Bloch = *Labrus rufus* Linnaeus); name preoccupied.

3396. *Bodianus rufus* (Linnaeus). *Ladyfish; Spanish ladyfish; Spanish hogfish;*
Pudiano; Perro colorado.
 West Indies, north to Key West, south to Rio de Janeiro.
Labrus rufus Linnaeus, Syst. Nat., Ed. X, 1758, 284, America; after
 Catesby.
Pudiano vermelho Marcgrave, Hist. Bras., 1648, 145, Brazil.
Turdus flavus Catesby, Nat. Hist. Carolina, II, 1743, 11, pl. 11, fig. 1,
 Bahamas.
Perro colorado Parra, Descr. Dif. Piez. Hist. Nat. Cuba, 1787, 3, lam. 3,
 fig. 1, Habana.
 ?*Bodianus bodianus* Bloch, Naturgesch. Ausl. Fische, IV, 1790, 33,
 Brazil.
 ?*Lutjanus verres* Bloch, loc. cit., V, 1791, 9, locality uncertain
 ?*Sparus falcatus* Bloch, loc. cit., 20, Martinique; after Plumier.
Labrus semiruber Lacépède, Hist. Nat. Poiss., III, 1802, 428, Rio
 Janeiro.
Bodianus blochi Lacépède, loc. cit., IV, 1803, 279; after Bloch.
Harpe coeruleso-aureus Lacépède, loc. cit., 426, pl. 8, fig. 2, Martinique.

3397. *Bodianus diplotenia* (Gill).
 Pacific coast of tropical America; Cape San Lucas; Panama; Revilla-
 giedo Islands; Mazatlan.
Harpe diplotenia Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 140,
 Cape San Lucas; female.
Harpe pectoralis Gill, loc. cit., 141, Cape San Lucas; male.

3398. *Bodianus pulchellus* (Poey).

Cuba.

Cossyphus pulchellus Poey, Memorias, II, 1860, 208, Habana.

Genus 1181. *DECODON* Günther.

Decodon Günther, Cat., IV, 1862, 101 (*Cossyphus puellaris* Poey).

3399. *Decodon puellaris* (Poey).

West Indies; Cuba; Barbados; Snapper Banks off Pensacola, Fla.

Cossyphus puellaris Poey, Memorias, II, 186, 2101, Habana.

Genus 1182. *PIMELOMETOPON* Gill. *Fatheads*.

Pimelometopon Gill, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 58 (*Labrus pulcher* Ayres).

3400. *Pimelometopon pulcher* (Ayres). *California redfish; Fathead; Sheep-head*.

Southern California, from Point Conception to Ascension Island, Lower California.

Labrus pulcher Ayres, Proc. Calif. Acad. Nat. Sci., I, 1854, 3, San Diego, Calif.

Genus 1183. *CLEPTICUS* Cuvier.

Clepticus Cuvier, Règne Anim., ed. 2, II, 1829, 261 (*Rabirubia genizara* Parra = *Brama parræ* Bloch and Schneider).

3401. *Clepticus parræ* (Bloch and Schneider). *Genizara; Janissary; Creole*. West Indies.

Rabirubia genizara Parra, Dif. Piezas de Hist. Nat. Cuba, 1787, 44, pl. 21, fig. 1, Habana; author not binomial

Brama parræ Bloch and Schneider, Syst. Ichth., 1801, 100, Habana.

Family 252. *CORIDÆ*Genus 1184. *IRIDIO*⁸⁴ Jordan and Evermann. *Doncellas*.

Halichares Rupell, Neue Wirbelthiere, Fische, 1835, 17 (*bimaculatus*); not *Halichærus* Nilsson, 1820, a genus of seals

Hermiulus Swainson, Nat. Hist. Classn. Fishes, II, 1839 228, (*Labrus guttatus* Bloch); as restricted by Bonaparte (1841); restricted by Swain (1882) to *Cheilio auratus* Quoy and Gaimard.

Parajulis Bleeker, Ned. Tijdschr. Dierk., II, 1865, 251 (*Julis pæcilopterus* Temminck and Schlegel).

Iridio Jordan and Evermann, Check List, 1895, 412 (*Julis dimidiatus* Agassiz = *Labrus cyanocephalus* Bloch).

3402. *Iridio radiata* (Linnæus). *Puddingwife; Doncella; Pudiano verde*.

West Indies, Brazil north to Florida Keys, Bermuda, and St. Paul Rocks.

Labrus radiatus Linnæus, Syst. Nat., Ed. X, 1758, 288, Bahamas; based on Catesby.

Pudiano verde Marcgrave, Hist. Pisc. Brasil., 1648, 146, Brazil.

Turdus oculo-radiatus Catesby, Nat. Hist. Carolina, II, 1743, 12, pl. 12, fig. 1, Bahamas.

Doncella Parra, Desc. Dif. Piez. Hist. Nat. Cuba, 1787, 95, lam. 37, fig. 1, Habana.

Labrus brasiliensis Bloch, Naturgesch. Ausl. Fische, V, 1791, 125, Brazil.

Julis crotaphus Cuvier, Règne Anim., ed. 2, II, 1829, 258; after Parra.

Julis cyanostigma Cuvier and Valenciennes, Hist. Nat. Poiss., XIII, 1839, 286 (391), Martinique.

Julis opalina Cuvier and Valenciennes, loc. cit., 287 (392), Martinique.

Julis patatus Cuvier and Valenciennes, loc. cit., 291 (398), Martinique; Cuba.

Julis principis Cuvier and Valenciennes, loc. cit., 294 (402), Bahia.

3403. *Iridio bivittata*⁸⁵ (Bloch). *Slimy dick; Doncella*.

West Indies, north to Beaufort, N. C., and south to Brazil.

Labrus bivittatus Bloch, Naturgesch. Ausl. Fische, V, 1791, 133, from a painting by Plumier made at Martinique.

Sparus radiatus Linnæus, Syst. Nat., ed. XII, 1766, 472, Carolinas.

Labrus psittaculus Lacépède, Hist. Nat. Poiss., III, 1800, 452, Martinique; after Plumier.

Julis humeralis Poey, Memorias, II, 1860, 212, Cuba.

Chærojulis grandisquamis Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 206, Beaufort, N. C.

Chærojulis arangoi Poey, Enumeratio, 1876, 109, Habana.

PlatyGLOSSUS florealis Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 287, Pensacola, Fla.

⁸⁴ This genus is very close to the Old World genus *Halichares*.

⁸⁵ Regarded by some authors as the young of *Iridio radiata*.

3404. *Iridio cyanocephalus* (Bloch).
West Indies, south to Brazil.
Labrus cyanocephalus Bloch, Naturgesch. Ausl. Fische, V, 1791, 139,
location unknown; Museum of Link
Julis dimidiatus Agassiz, in Spix, Pisc. Bras., 1829, 96, pl. 53, Brazil.
Julis internasalis Poey, Memorias, II, 1861, 421, Cuba.
3405. *Iridio maculipinna* (Müller and Troschel).
West Indies to Beaufort, N. C.
Julis maculipinna Müller and Troschel, in Schomburgk, Hist. Barbados,
1848, 674, Barbados.
3406. *Iridio garnoti* (Cuvier and Valenciennes).
West Indies, Cuba, Martinique, St. Croix.
Julis garnoti Cuvier and Valenciennes, Hist. Nat. Poiss., XIII, 1839,
285 (390), Martinique.
Julis cinctus Poey, Memorias, II, 1860, 211, Cuba.
Julis ruptus Poey, loc. cit., 212, Cuba.
3407. *Iridio kirschii* Jordan and Evermann.
Cuba to Brazil.
Julis crotaphus Cuvier and Valenciennes, Hist. Nat. Poiss., XIII,
1839, 289 (395), Bahia; not of Cuvier.
Iridio kirschii Jordan and Evermann, Check List, 1895, 413, Bahia,
Brazil.
3408. *Iridio poeyi* (Steindachner).
Surinam
Platygllossus poeyi Steindachner, Ichth. Notizen, VI, 1867, 49, Surinam.
3409. *Iridio caudalis* (Poey).
Cuba.
Julis caudalis Poey, Memorias, II, 1860, 213, Habana.
3410. *Iridio pictus* (Poey).
West Indies, north to the Snapper Banks off Pensacola, Fla.
Julis pictus Poey, Memorias, II, 1860, 214, Cuba.
3411. *Iridio elegans* Bean.
Bermudas to Curacao.
Iridio elegans Bean, Field Mus. Nat. Hist., Zool., VII, 1906, 65, fig. 6,
Nonesuch Island, Bermudas.
3412. *Iridio similis* Nichols.
Bermudas.
Iridio similis Nichols, Proc. Biol. Soc. Wash., XXXIII, 1920, 61,
Bermudas.
3413. *Iridio frenatus* Nichols.
Bermuda.
Iridio frenatus Nichols, Proc. Biol. Soc. Wash., XXXIII, 1920, 61,
Bermuda.
3414. *Iridio decoratus* Bean.
Bermudas.
Iridio decoratus Bean, Proc. Biol. Soc. Wash., XIX, 1906, 29, Nonesuch
Island, Bermudas.
3415. *Iridio meyeri* Bean.
Bermudas.
Iridio meyeri Bean, Proc. Biol. Soc. Wash., XIX, 1906, 29, Nonesuch
Island, Bermudas.
3416. *Iridio microstomus* Bean.
Bermudas.
Iridio microstomus Bean, Proc. Biol. Soc. Wash., XIX, 1906, 30, None-
such Island, Bermudas.
3417. *Iridio semicinctus* (Ayres). *Kelpfish; Señorita*.
Southern California, Santa Barbara Islands to Cedros Island.
Julis semicinctus Ayres, Proc. Calif. Acad. Nat. Sci., II, 1859, 32,
Cerro [Cedros] Island, off coast of Lower California.
3418. *Iridio dispilus* (Günther).
Pacific coast of tropical America, Mazatlan to Panama.
Platygllossus dispilus Günther, Proc. Zool. Soc. Lond., 1864, 25, Panama.

3419. *Iridio nicholsi* (Jordan and Gilbert).
Revillagigedo and Galapagos Islands.
PlatyGLOSSUS nicholsi Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 231, Braithwaite Bay, Socorro Island.
3420. *Iridio sellifer* (Gilbert).
Revillagigedo Archipelago
Halichæres sellifer Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 67, Clarion Island.
- Genus 1185. *OXYJULIS* Gill. *Señoritas*.
Oxyjulis Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 330 (*Julis modestus* Girard).
3421. *Oxyjulis californicus* (Gunther) *Señorita*.
Coast of southern California; common from Monterey to Guadalupe Island.
Julis modestus Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 151, San Diego, Monterey, San Miguel; preoccupied.
Halichæres californicus Gunther, Ann. Mag. Nat. Hist., ser. 3, VIII, 1861, 386, name only; substitute for *Julis modestus*, preoccupied.
- Genus 1186. *PSEUDOJULIS* Bleeker.
Pseudojulis Bleeker, Proc. Zool. Soc. Lond., 1861, 412 (*P. girardi* Bleeker).
- Subgenus *PSEUDOJULIS*.
3422. *Pseudojulis inornatus* Gilbert.
Pacific coast of Mexico; only the type known.
Pseudojulis inornatus Gilbert, Proc. U. S. Nat. Mus., XI II, 1890, 67, Pacific coast of Mexico.
3423. *Pseudojulis melanotis* Gilbert.
Pacific coast of Mexico; only the type known.
Pseudojulis melanotis Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 66, Pacific coast of Mexico.
- Genus 1187. *EMMEEKIA* Jordan and Evermann.
Emmeekia Jordan and Evermann, Check List, 1895, 413 (*Pseudojulis venustus* Jenkins and Evermann).
3424. *Emmeekia venusta* (Jenkins and Evermann).
Gulf of California.
Pseudojulis venustus Jenkins and Evermann, Proc. U. S. Nat. Mus., XI, 1888, 145, Guaymas, Sonora, Mexico.
- Genus 1188. *JULIDIO* Jordan and Evermann.
Julidio Jordan and Evermann, Check List, 1895, 413 (*Pseudojulis adustus* Gilbert).
3425. *Julidio adustus* (Gilbert).
Revillagigedo Islands.
Pseudojulis adustus Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 66, Socorro Island.
3426. *Julidio notospilus* (Günther).
Pacific coast of Mexico, Panama, and Clarion Island of Revillagigedo Archipelago.
Pseudojulis notospilus Günther, Proc. Zool. Soc. Lond., 1864, 26, Panama.
- Genus 1189. *THALASSOMA* Swainson.
Thalassoma Swainson, Nat. Hist. Class. Fishes, II, 1839, 224 (*Labrus purpureus* Rüppell).
Chlorichthys Swainson, loc. cit., 232 (*Labrus bifasciatus* Bloch).
Julis Günther, not of Cuvier and Valenciennes.

- 3427. *Thalassoma bifasciatum* (Bloch).**
 West Indies; Tortugas; Jamaica; Cuba; San Domingo; and Martinique.
Labrus bifasciatus Bloch, Naturgesch. Ausl. Fische, V, 1791, 131,
 West Indies.
Labrus bifasciatus torquatus Bloch and Schneider, Syst. Ichth., 1801,
 243, Antilles; after Gronow.
Julis detorsor Cuvier and Valenciennes, Hist. Nat. Poiss., XIII, 1839,
 298 (408), San Domingo.
Labrus ornatus Gronow, Syst. Nat., ed. Gray, 1854, 83, Antilles.
Julis gillmanus Poey, Memorias, II, 1860, 214, Cuba
Julis nitida Gunther, Cat., IV, 1862, 190, Jamaica
- 3428. *Thalassoma socorroensis* Gilbert.**
 Revillagigedo Archipelago.
Thalassoma socorroense Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 69,
 Socorro Island
- 3429. *Thalassoma nitidum* (Gunther).**
 West Indies; Jamaica; Tortugas
Julis nitida Gunther, Cat., IV, 1862, 190, Jamaica.
Julis nitidissima Goode, Am. Jour. Sci. Arts, XIV, 1877, 293, Bermuda.
- 3430. *Thalassoma grammaticum* Gilbert.**
 Revillagigedo Archipelago.
Thalassoma grammaticum Gilbert, Proc. U. S. Nat. Mus., XIII, 1890,
 68, Socorro Island; Clarion Island.
- 3431. *Thalassoma virens* Gilbert**
 Revillagigedo Archipelago.
Thalassoma virens Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 68,
 Socorro Island.
- 3432. *Thalassoma lucasanum* (Gill).**
 Gulf of California, Cape San Lucas to Mazatlan and Tres Marias
 Islands; Panama Bay.
Julis lucasanus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 142,
 Cape San Lucas.
- 3433. *Thalassoma steindachneri* (Jordan).**
 Acapulco, Pacific coast of Mexico.
Thalassoma steindachneri Jordan, Rept. U. S. Fish Com., XV, 1887,
 654, Acapulco; after Steindachner.
Julis melanochir Steindachner, Ichth. Beitr., III, 1875, 63, Acapulco;
 not of Bleeker
- Genus 1190. *DORATONOTUS* Günther.**
Doratonotus Günther, Cat., IV, 1862, 124 (*D. megalepis* Günther).
- 3434. *Doratonotus megalepis* Günther.**
 West Indies, north to Key West.
Doratonotus megalepis Günther, Cat., IV, 1862, 125, St. Christopher.
Doratonotus thalassinus Jordan and Gilbert, Proc. U. S. Nat. Mus.,
 VII, 1884, 28, Key West, Fla
- 3435. *Doratonotus decoris* Evermann and Marsh.**
 Porto Rico.
Doratonotus decoris Evermann and Marsh, Rept. U. S. Fish Com.,
 XXV, 1899, 354, Ponce, Porto Rico.
- 3436. *Doratonotus boekei* Metzelaar**
 Caribbean Sea.
Doratonotus boekei Metzelaar, Trop. Atlant. Visschen, 1919, 107, fig. 31,
 Curaçao, Bonaire.
- Genus 1191. *XYRULA* Jordan.**
Xyrula Jordan, Rept. U. S. Fish Com., XV, 1887, 656 (*Xyrichthys*
jessiae Jordan).
- 3437. *Xyrula jessiae* (Jordan).**
 Snapper Banks off Tampa, Fla.
Xyrichthys jessiae Jordan, Proc. U. S. Nat. Mus., X, 1887, 698, off
 Tampa Bay, Fla.

Genus 1192. NOVACULICHTHYS Bleeker.

Novaculichthys Bleeker, Proc. Zool. Soc. Lond., 1861, 414 (*Labrus ænurus* Bloch).

Dimalacocentrus Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 223 (*Novacula kallasoma* Bleeker)

3438. *Novaculichthys martinicensis* (Cuvier and Valenciennes).

Martinique.

Xyrichthys martinicensis Cuvier and Valenciennes, Hist. Nat. Poiss., XIV, 1839, 37 (49), Martinique

Xyrichthys vitta Cuvier and Valenciennes, loc. cit., 38 (51), no locality.

3439. *Novaculichthys infirmus* (Bean)

Cozumel, Yucatan.

Xyrichthys infirmus Bean, Bull. U. S. Fish Com., VIII, 1888, 199, pl. 29, fig. 2, Cozumel

3440. *Novaculichthys rosipes* (Jordan and Gilbert).

Key West; Florida; Tortugas

Xyrichthys rosipes Jordan and Gilbert, Proc. U. S. Nat. Mus., VII, 1884, 27, Key West, Tortugas.

3441. *Novaculichthys ventralis* (Bean).

Cozumel Island, Yucatan.

Xyrichthys ventralis Bean, Bull. U. S. Fish Com., VIII, 1888, 198, pl. 29, fig. 1, Cozumel, Yucatan.

Genus 1193. XYRICHTHYS Cuvier. *Razorfishes*.

Xyrichthys Cuvier, Mém. Mus. d'Hist. Nat., I, 1815, 324, 329 (*X. novacula* Cuvier)

Novacula Cuvier, Règne Anim., Ed. I, 1817, 265 (*Coryphæna novacula* Linnæus).

Amorphocephalus Bowdich, Exc. Madeira, 1825, 238 (*A. granulatus* Bowdich).

3442. *Xyrichthys psittacus* (Linnæus). *Razorfish*.

West Indies, north to Pensacola and Charleston.

Coryphæna psittacus Linnæus, Syst. Nat., Ed. XII, 1766, 448, Charleston, S. C.

Coryphæna lineata Gmelin, Syst. Nat., 1788, 1195, Charleston, S. C.

Xyrichthys venustus Poey, Enumeratio, 1876, 110, Martinique.

Xyrichthys vermiculatus Poey, Memorias, II, 1860, 215, Cuba.

3443. *Xyrichthys mundiceps* Gill.

Cape San Lucas, Lower California.

Xyrichthys mundiceps Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 143, Cape San Lucas.

3444. *Xyrichthys modestus* Poey.

Cuba.

Xyrichthys modestus Poey, Repertorio, II, 1867, 238, Cuba.

3445. *Xyrichthys binghami* Mowbray.

Bahama Islands.

Xyrichthys binghami Mowbray, Marine Life, I, Apr. 2, 1925, 1, Cay. Sal Bank, Bahamas.

Genus 1194. INIISTIUS Gill.

Iniistius Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 143 (*Xyrichthys pavo* Cuvier and Valenciennes).

3446. *Iniistius pavoninus* (Cuvier and Valenciennes).

Hawaii and Pacific coast of Mexico.

Xyrichthys pavoninus Cuvier and Valenciennes, Hist. Nat. Poiss., XIV, 1839, 63, Hawaii.

Iniistius mundicarpus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 145, Cape San Lucas.

Genus 1195. BERMUDICHTHYS Nichols.

Bermudichthys Nichols, Proc. Biol. Soc. Wash., XXXIII, 1920, 62 (*B. subfurcatus* Nichols).

3447. *Bermudichthys subfurcatus* Nichols.

Bermuda.

Bermudichthys subfurcatus Nichols, Proc. Biol. Soc. Wash., XXXIII, 1920, 62, Bermuda.

Family 253 SPARISOMIDÆ

Genus 1196. CRYPTOTOMUS Cope.

Cryptotomus Cope, Trans. Amer. Philos. Soc., XIV, 1870, 462 (*C. roseus* Cope).

Nicholsina Fowler, Copeia, No. 14, 1915, 3 (*Cryptotomus beryllinus* Jordan and Swain).

Subgenus CRYPTOTOMUS Cope.

3448. *Cryptotomus roseus* Cope

West Indies, south to Brazil.

Cryptotomus roseus Cope, Trans. Amer. Phil. Soc., XIV, 1871, 462, St. Martins, West Indies.

3449. *Cryptotomus crassiceps* Bean.

Bermudas.

Cryptotomus crassiceps Bean, Proc. Biol. Soc. Wash., XIX, 1906, 32, Coopers Island, Bermudas.

Subgenus NICHOLSINA Fowler.

3450. *Cryptotomus beryllinus* Jordan and Swain. *Parrotfish*.

Florida Keys, north to New Jersey, south to Rio Janeiro.

Cryptotomus beryllinus Jordan and Swain, Proc. U. S. Nat. Mus., VII, 1884, 101, Habana.

Sparisoma sp. Bean, Bull. U. S. Fish Com., VII, 1887, 137, Somers Point, N. J.

3451. *Cryptotomus dentiens* (Poey).

Cuba.

Scarus dentiens Poey, Memorias, II, 1861, 422, Cuba.

3452. *Cryptotomus retractus* (Poey).

West Indies, north to Pensacola.

Calliodon retractus Poey, Synopsis, 1868, 245, Habana.

3453. *Cryptotomus ustus* (Cuvier and Valenciennes).

West Indies, north to Charleston, south to Bahia.

Calliodon ustus Cuvier and Valenciennes, Hist. Nat. Poiss., XIV, 1839, 212 (286), pl. 405, Brazil.

3454. *Cryptotomus auropunctatus* (Cuvier and Valenciennes).

San Domingo.

Calliodon auro-punctatus Cuvier and Valenciennes, Hist. Nat. Poiss., XIV, 1839, 215 (290), Santo Domingo.

Genus 1197. LEPTOSCARUS Swainson.

Leptoscarus Swainson, Nat. Hist. Classn. Fishes, 1839, 11 (*Scarus vaigiensis* Quoy and Gaimard = *Scarus spinidens* Cuvier and Valenciennes).

Calotomus Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 70 (*C. xenodon* Gilbert).

3455. *Leptoscarus xenodon* (Gilbert).

Socorro Island, Revillagigedo Archipelago.

Calotomus xenodon Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 70, Socorro Island, Revillagigedo Islands.

Genus 1198. SPARISOMA Swainson. *Vezas*.

Sparisoma Swainson, Nat. Hist. Classn. Fishes, etc., II, 1839, 227 (*Scarus abildgardii* Bloch).

Euscarus Jordan and Evermann, Check List, 1895, 416 (*Labrus cretensis* Linnæus).

Subgenus SPARISOMA Swainson.

3456. *Sparisoma xystrodon* Jordan and Swain.

West Indies, north to Key West.

Sparisoma xystrodon Jordan and Swain, Proc. U. S. Nat. Mus., VII, 1884, 99, Key West; Habana.

3457. *Sparisoma atomarium* (Poey).

Cuba.

Scarus atomarius Poey, Memorias, II, 1861, 423, Habana.

3458. *Sparisoma radians* (Cuvier and Valenciennes).
West Indies, south to Brazil; Tortugas.
Scarus radians Cuvier and Valenciennes, Hist. Nat. Poiss., XIV, 1839, 153 (206), Brazil.
Scarus lacrimosus Poey, Memorias, II, 1861, 422, Cuba.
3459. *Sparisoma hoplomystax* (Cope)
West Indies, from Key West to Bahia.
Scarus hoplomystax Cope, Trans. Amer. Phil. Soc., XIV, 1871, 462, St. Martins, West Indies.
Sparisoma cyanolene Jordan and Swain, Proc. U. S. Nat. Mus., VII, 1884, 98, Key West, Fla.
3460. *Sparisoma niphobles* Jordan and Bollman
Bahamas; Tortugas; Cape Florida; Key West; Porto Rico; abundant about Porto Rico.
Sparisoma niphobles Jordan and Bollman, Proc. U. S. Nat. Mus., XI, 1888, 551, Green Turtle Cay, Bahamas.
3461. *Sparisoma aurofrenatum* (Cuvier and Valenciennes).
West Indies.
Scarus aurofrenatus Cuvier and Valenciennes, Hist. Nat. Poiss., XIV, 1839, 142 (191), San Domingo.
Scarus miniofrenatus Poey, Memorias, II, 1860, 279, Cuba.
3462. *Sparisoma oxybrachium* (Poey).
Cuba.
Scarus oxybrachius Poey, Synopsis, 1868, 342, Habana.
3463. *Sparisoma abildgaardi* (Bloch). *Red parrotfish; Roseback parrot.*
West Indies south to Brazil; Tortugas; generally common.
Sparus abildgaardi Bloch, Nat. Ausl. Fische, V, 1791, 22, pl. 259, America.
Vieja Parra, Descr. Dif. Piezas Hist. Nat., 1787, 58, pl. 28, fig. 2, Cuba.
Scarus coccineus Bloch and Schneider, Syst. Ichth., 1801, 289, Cuba; after Parra.
Sparus aureo-ruber Lacépède, Hist. Nat. Poiss., IV, 1803, 55, 163, Martinique; on a drawing by Plumier.
Scarus amplius Ranzani, Nov. Comm. Ac. Scient. Inst. Bonon., V, 1842, 324, pl. 25, Brazil (fide Guichenot).
Scarus erythrinoides Guichenot, Mem. Soc. Sci. Nat. Cherbourg, XI, 1865, 10, San Domingo.
3464. *Sparisoma distinctum* (Poey).
Cuba.
Scarus distinctus Poey, Memorias, II, 1861, 423, Habana.
3465. *Sparisoma chrysopterus* (Bloch and Schneider). *Blue parrotfish; Vieja.*
West Indies, south to Bahia.
Scarus chrysopterus Bloch and Schneider, Syst. Ichth., 1801, 286, pl. 57, American seas
Vieja Parra, Descr. Dif. Piezas Hist. Nat., 1787, 59, pl. 28, fig. 4, Cuba.
Scarus chloris Bloch and Schneider, Syst. Ichth., 1801, 289, Cuba.
Scarus lateralis Poey, Memorias, II, 1860, 219, Cuba.
?Scarus spinidens Guichenot, Mem. Soc. Sci. Nat. Cherbourg, XI, 1865, 15, Bahia.
3466. *Sparisoma lorito* Jordan and Swain.
West Indies.
Sparisoma lorito Jordan and Swain, Proc. U. S. Nat. Mus., VII, 1884, 95, Habana.
3467. *Sparisoma viride* (Bonnaterre). *Green parrotfish.*
Tortugas to West Indies.
Scarus viridis Bonnaterre, Enc. Meth., 1788, 96, Bahamas; after Catesby.
Piscis viridis bahamensis Catesby, Nat. Hist. Car., II, 1743, 29, pl. 29, Bahamas.
Scarus melanotis Bleeker, Verslagen Koning. Akad. Wetenschappen, XIV, 1862, 126, St. Croix.
Scarus (Catesby) Lacépède, Hist. Nat. Poiss., IV, 1803, 16; after Catesby.

3468. *Sparisoma flavescens* (Bloch and Schneider). *Mud parrot*; *Vieja colorada*, *Vieja mager*, *Parrotfish*.
West Indies; Key West to Rio Janeiro; Woods Hole, Mass.
Scarus flavescens Bloch and Schneider, Syst. Ichth., 1801, 290, Cuba;
after Parra.
Vieja Parra, Descr. Dif. Piezas Hist. Nat., 1787, 59, pl. 28, fig. 4, Cuba.
Scarus squahdus Poey, Memorias, II, 1860, 218, Cuba.
3469. *Sparisoma rubripinne* (Cuvier and Valenciennes).
West Indies.
Scarus rubripinnus Cuvier and Valenciennes, Hist. Nat. Poiss., XIV,
1839, 147 (199), San Domingo.
Scarus virens Cuvier and Valenciennes, loc. cit., 1839, 150 (203), Porto
Rico; Martinique.
Scarus circumnotatus Poey, Memorias, II, 1861, 423, Cuba.
Scarus truncatus Poey, Synopsis, 1868, 339, Cuba.
?Scarus emarginatum Poey, Synopsis, 1868, 340, Cuba.
3470. *Sparisoma strigatum* (Gunther).
Scarus strigatus Gunther, Cat., IV, 1862, 212, locality unknown, but
as the genus *Sparisoma* is chiefly confined to American waters, this
species is probably American.
3471. *Sparisoma frondosum* (Cuvier).
West Indies, south to Brazil.
Scarus frondosus Cuvier, in Agassiz, Spix, Pisc. Brasil, 1829, 98, Bahia.
Scarus aracanga Gunther, Cat., IV, 1862, 209, Jamaica.
3472. *Sparisoma brachiale* (Poey).
Cuba.
Scarus brachialis Poey, Memorias, II, 1861, 345, Cuba.
?Scarus humeralis Poey, loc. cit., 422, Habana.
3473. *Sparisoma maschalespilos* (Bleeker).
Surinam.
Scarus maschalespilos Bleeker, Verslagen Koning. Akad. Vet., XIV,
1862, 127, Surinam.

Family 254. SCARIDÆ

- Genus 1199. *SCARUS* Forskål.
Callyodon Gronow, Zoophyl., I, 1763, 72 (*Scarus croicensis* Bloch);
work not binomial.
Scarus Forskål, Descr. Anim., 1775, 25 (*Scarus croicensis* Bloch); not of
Gronow.
Hemistoma Swainson, Classn. Fish., etc., II, 1839, 226 (*Scarus pepo*
Bennett = *H. reticulata* Swainson).
Petronason Swainson, loc. cit., 226 (*Coryphæna psittacus* Linnæus).
Erythys Swainson, loc. cit., 226 (*Labrus croicensis* Bloch).
Chlorurus Swainson, loc. cit., 227 (*Scarus gubbus* Rüppell).
3474. *Scarus bollmani* Jordan and Evermann.
Gulf of Mexico in moderately deep water.
Scarus bollmani Jordan and Evermann, Proc. U. S. Nat. Mus., IX,
1886, 470, snapper banks off Tampa Bay, Fla.
3475. *Scarus punctulatus* Cuvier and Valenciennes.
West Indies; Tortugas.
Scarus punctulatus Cuvier and Valenciennes, Hist. Nat. Poiss., XIV,
1839, 144 (195), Martinique.
Scarus diadema Cuvier and Valenciennes, loc. cit., 146 (196), Martinique.
Pseudoscarus tæniopterus Gunther, Cat., IV, 1862, 226, Trinidad.
3476. *Scarus tæniopterus* Desmarest.
West Indies.
Scarus tæniopterus Desmarest, Dict. Classique, XV, 1831, 244, pl. 12,
Cuba.
Scarus vetula Cuvier and Valenciennes, Hist. Nat. Poiss., XIV, 1839,
143 (193), St. Thomas; not of Bloch and Schneider.
Scarus virginalis Jordan and Swain, Proc. U. S. Nat. Mus., VII, 1884,
88, Habana.

3477. *Scarus trispinosus* Cuvier and Valenciennes
Brazil.
Scarus trispinosus Cuvier and Valenciennes, Hist. Nat. Poiss., XIV, 1839, 135 (182), Brazil.
Scarus quadrispinosus Cuvier and Valenciennes, loc. cit., 146 (197), Martinique.
3478. *Scarus aracanga* Gunther.
West Indies.
Scarus aracanga Gunther, Cat., IV, 1862, 209, Jamaica.
Pseudoscarus aracanga Gunther, loc. cit., 227, Jamaica.
3479. *Scarus cuzamilæ* Bean.
Cozumel Island, Yucatan
Scarus cuzamilæ Bean, Bull. U. S. Fish. Com., VIII, 1888, 196, Cozumel, Yucatan
3480. *Scarus vetula* Bloch and Schneider. *Mudfish; Vieja; Oldwife.*
Tortugas; West Indies.
Vieja Parra. Dif. Piezas, etc., 1787, 58, pl. 28, fig. 1, Habana.
Scarus vetula Bloch and Schneider, Ichth., 1801, 289, Cuba.
Scarus superbus Poey, Memorias, II, 1860, 218, Cuba.
3481. *Scarus gnathodus* (Poey).
Cuba.
Pseudoscarus gnathodus Poey, Repertorio, II, 1867, 240, Habana.
- Subgenus *CALLYODON* Gronow.
3482. *Scarus croicensis* Bloch *Bullon.*
West Indies to Key West and Woods Hole, Mass.
Scarus croicensis Bloch, Nat. Ausl. Fische, IV, 1790, 27, St. Croix.
Scarus insulæ-santæ-crucis Bloch and Schneider, Syst. Ichth., 1801, 285, St. Croix.
Scarus alternans Cuvier and Valenciennes, Hist. Nat. Poiss., 1839, 148 (200), Martinique
Pseudoscarus lneolatus Poey, Repertorio, II, 1867, 239, Cuba.
3483. *Scarus evermanni* Jordan.
Gulf of Mexico, in moderately deep water.
Scarus evermanni Jordan, Proc. U. S. Nat. Mus., IX, 1886, 469, Snapper Banks off Tampa Bay, in moderately deep water.
3484. *Scarus flavomarginatus* Cuvier and Valenciennes.
Martinique.
Scarus flavo-marginatus Cuvier and Valenciennes, Hist. Nat. Poiss., XIV, 1839, 150 (202), Martinique
3485. *Scarus acutus* Poey.
Cuba.
Scarus acutus Poey, Memorias, II, 1861, 216, Habana.
3486. *Scarus cæruleus* (Bloch). *Blue parrotfish; Loro; Clamagore.*
West Indies; Chesapeake Bay.
Coryphæna cærulea Bloch, Naturgesch. Ausl. Fische, II, 1786, 120 (148), pl. 176, probably Martinique; in part; after Catesby.
Loro Parra, Descr. Dif. Piezas Hist. Nat., 1787, 57, pl. 27, fig. 1, Cuba.
Trompa Parra, loc. cit., fig. 2, Cuba
Scarus trilobatus Lacépède, Hist. Nat. Poiss., IV, 1803, 21, Martinique.
?Scarus holocyanæos Lacépède, loc. cit., 45, Martinique.
Scarus obtusus Poey, Memorias, II, 1861, 217, Cuba.
Scarus nuchalis Poey, loc. cit., 220, Cuba.
3487. *Scarus compressus* (Osburn and Nichols).
Gulf of California.
Callyodon compressus Osburn and Nichols, Bull. Amer. Mus. Nat. Hist., XXXV, 1916, 170, fig. 12, Concepcion Bay, Gulf of California.
3488. *Scarus noyesi* Heller and Snodgrass.
Gulf of California to Galapagos Islands.
Scarus noyesi Heller and Snodgrass, Proc. Wash. Acad. Sci., V, 1903, 206, Tagus Cove, Albemarle Island.

- 3489. *Scarus emblematicus* Jordan and Rutter.**
Jamaica.
Scarus emblematicus Jordan and Rutter, Proc. Acad. Nat. Sci. Phila., XLIX, 1897, 122, Jamaica.
- Genus 1200. PSEUDOSCARUS Bleeker.**
Pseudoscarus Bleeker, Versl. Akad. Vet. Amsterdam, Scaroiden, XII, 1861, 230 (*P. microrrhinos* Bleeker)
Loro Jordan and Evermann, Check List, 1895, 418 (*Scarus guacamara* Cuvier).
- Subgenus PSEUDOSCARUS Bleeker.**
- 3490. *Pseudoscarus caelestinus* (Cuvier and Valenciennes). *Loro*.**
West Indies.
Scarus caelestinus Cuvier and Valenciennes, Hist. Nat. Poiss., XIV, 1839, 134 (180), St. Thomas.
- 3491. *Pseudoscarus microps* (Osburn and Nichols)**
Gulf of California.
Callyodon microps Osburn and Nichols, Bull. Amer. Mus. Nat. Hist., XXXV, 1916, 170, fig. 12, Santa Catalina Island, Gulf of California.
- 3492. *Pseudoscarus simplex* Poey.**
Cuba.
Pseudoscarus simplex Poey, Repertorio, I, 1867, 185, Habana.
- 3493. *Pseudoscarus pleianus* (Poey).**
St. Thomas; only the type known.
Scarus pleianus Poey, Memorias, II, 1861, 393, St. Thomas, West Indies.
- 3494. *Pseudoscarus guacamara* (Cuvier). *Guacamara*, Green parrotfish.**
West Indies, north to Florida Keys, south to Rio de Janeiro; straying to Argentine.
Guacamara Parra, Descr. Dif. Piezas Hist. Nat., 1787, p. 54, pl. 26, Cuba.
Scarus guacamara Cuvier, Règne Anim., ed. 2, II, 1829, 235; after Parra.
Scarus turchesus Cuvier and Valenciennes, Hist. Nat. Poiss., XIV, 1839, 134 (181), Porto Rico
Scarus rostratus Poey, Memorias, II, 1861, 221, Cuba
- 3495. *Pseudoscarus perrico* (Jordan and Gilbert) *Perrico*.**
Pacific coast of Mexico, from La Paz to Mazatlan
Scarus perrico Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 357, Mazatlan.
- 3496. *Pseudoscarus plumbeus* Bean.**
Bermudas.
Pseudoscarus plumbeus Bean, Proc. Biol. Soc. Wash., XXV, 1912, 125, Bermudas.

Order VV. GOBOIDEA

Family 255. ELEOTRIDÆ. Sleepers

- Genus 1201. GOBIOMORUS Lacépède.**
Gobiomorus Lacépède, Hist. Nat. Poiss., II, 1800, 583 (*G. dormitor* Lacépède); first restriction to this species.
Philypnus Cuvier and Valenciennes, Hist. Nat. Poiss., XII, 1837, 255 (*Platycephalus dormitor* Bloch).
Lembus Günther, Cat., I, 1859, 505 (*L. maculatus* Günther).
- 3497. *Gobiomorus dormitor* Lacépède. *Sleeper*; *Guavina*.**
Streams of the West Indies and the Atlantic shores of Central America, Mexico and Surinam.
Gobiomorus dormitor Lacépède, Hist. Nat. Poiss., II, 1800, 583, Martinique; from a drawing by Plumier.
Guavina Parra, Descr. Dif. Piezas Hist. Nat. Cuba, 1787, 105, lam. 39, fig. 1, Habana
Platycephalus dormitor Bloch and Schneider, Ichth., 1801, 60, Martinique.
Eleotris longiceps Günther, Proc. Zool. Soc. Lond., 1864, 151, Nicaragua.
Eleotris dormitrix Cuvier, Règne Anim., ed. 2, II, 1829, 246, Antilles.

- 3498. *Gobiomorus lateralis* (Gill).** *Aboma de mar*
Streams of Pacific coast of Mexico and Central America; from Sonora to Panama.
Phylpnus lateralis Gill, Proc Acad. Nat. Sci. Phila., XII, 1860, 123, Cape San Lucas.
- Genus 1202. DORMITATOR** Gill.
Prochilus Cuvier, Règne Anim., ed. 1, II, 1817, 294 (*Sciæna maculata* Bloch); name preoccupied.
Dormitator Gill, Proc Acad. Nat. Sci. Phila., XIV, 1862, 240 (*D. gundlachi* Poey).
- 3499. *Dormitator maculatus* (Bloch).** *Guavina*; *Mapo*. *Paneca*; *Mapiro*; *Striped sleeper*.
Both coasts of tropical America, ranging from South Carolina through the West Indies to Para, Cape San Lucas, and Panama
Sciæna maculata Bloch, Ichth., 1785, pl. 299, fig. 2, West Indies.
Eleotris mugiloides Cuvier and Valenciennes, Hist. Nat. Poiss., XII, 1837, 170 (226), Martinique; Surinam
Eleotris sima Cuvier and Valenciennes, loc. cit., 174 (232), Vera Cruz
Eleotris latifrons Richardson, Voy. Sulphur, Fishes, 1844, 57, pl. 35, figs. 4 and 5, locality unknown, supposed to be from Pacific coast of Central America.
Eleotris grandisquama Cuvier and Valenciennes, Hist. Nat. Poiss., XII, 1837, 173 (229), America.
Eleotris somnolentus Girard, Proc. Acad. Nat. Sci. Phila., X, 1858, 169, near mouth of Rio Grande.
Eleotris omocyaneus Poey, Memorias, II, 1861, 269, Habana
Dormitator microphthalmus Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 170, Panama.
Dormitator gundlachi Poey, Synopsis, 1868, 396, Cuba.
Dormitator lineatus Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 271, Savannah.
- Genus 1203. GUAVINA** Bleeker.
Guavina Bleeker, Esquisse d'un Syst. Nat. Gobiod., in Archiv. Neerl. Sci., IX, 1874 (*Eleotris guavina* Cuvier and Valenciennes).
- 3500. *Guavina guavina* (Cuvier and Valenciennes).** *Guarubaco*; *Guavina*.
East coast of tropical America, Cuba to Rio Janeiro.
Eleotris guavina Cuvier and Valenciennes, Hist. Nat. Poiss., XII, 1837, 168 (223) Martinique.
- Genus 1204. LEPTOPHYLPNUS** Meek and Hildebrand.
Leptophilypnus Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X, 1916, 361 (*L. fluvialilis* Meek and Hildebrand).
- 3501. *Leptophilypnus fluvialilis* Meek and Hildebrand.**
Fresh waters of Panama.
Leptophilypnus fluvialilis Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X, 1916, 361, Mindi, Canal Zone, Panama.
- Genus 1205. ELEOTRIS** Schneider.
Eleotris Schneider, Syst. Ichth., ed. Bloch, 1801, 65 (*Gobius pisonis*, etc., Gmelin).
Culius Bleeker, Esquisse, Gobioides, 1874, 304 (*C. fuscus* Bleeker).
- 3502. *Eleotris pisonis* (Gmelin).** *Guavina*; *Telard*; *Sleeper*.
Streams of the West Indies; southern Florida to Brazil.
Gobius pisonis Gmelin, Syst. Nat., 1789, 1206, Rio Almendares, Cuba; based on *Eleotris* of Gronow.
Amore pixuma Marcgrave, Hist. Brasil., IV, 1648, 166, Brazil.
Eleotris capite plagioplateo Gronow, Mus. Ichth., II, 1757, 168; after Marcgrave
Gobius amorea Walbaum, Artedi Pisc., III, 1792, 205; based on *Eleotris* of Gronow.
Eleotris gyrinus Cuvier and Valenciennes, Hist. Nat. Poiss., XII, 1837, 166 (220), pl. 356, Martinique; San Domingo; Surinam.
Eleotris (Culius) belizanus Sauvage, Bull. Soc. Philom. Paris, ser. 7, IV, 1879, 55, Belize, Cayenne.

3503. *Eleotris perniger* (Cope).
West Indies, south to Rio Janeiro.
Culius perniger Cope, Trans Amer Phil. Soc., XIV, 1870, 473, St. Martins, West Indies
3504. *Eleotris amblyopsis* (Cope).
Atlantic coast of America, from Charleston, S C, to Surinam; streams of West Indies.
Culius amblyopsis Cope, Trans Amer. Phil. Soc., XIV, 1870, 473, Surinam
3505. *Eleotris abacurus* Jordan and Gilbert.
Coast of South Carolina
Eleotris abacurus Jordan and Gilbert, Proc. Calif. Acad. Sci., 2d ser., VI, 1896, 228, Charleston, S. C.
3506. *Eleotris pictus* Kner and Steindachner. *Guavina*.
Streams about the Gulf of California, from Sonora south to Panama; Rio Presidio, Mazatlan.
Eleotris pictus Kner and Steindachner, Abh. Akad. Wiss. Wien, X, 1864, 18, pl 3, fig 1, Rio Bayano, near Panama.
Culius xquidens Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 461, Rio Presidio, near Mazatlan.
3507. *Eleotris tubularis* Heller and Snodgrass.
Cocos Island.
Eleotris tubularis Heller and Snodgrass, Proc. Wash. Acad. Sci., V, 1903, 210, Pl. X, Cocos Island.
- Genus 1206. *ALEXURUS* Jordan.
Alexurus Jordan, Proc. Calif. Acad. Sci., 2d ser., V, 1895, 511 (*A. armiger* Jordan and Richardson); perhaps inseparable from *Eleotris*.
3508. *Alexurus armiger* Jordan.
La Paz, Lower California, to Panama.
Alexurus armiger Jordan, Proc. Calif. Acad. Sci., 2d ser., V, 1895, 511, pl. 48, La Paz, Lower California.
- Genus 1207. *HEMIELEOTRIS* Meek and Hildebrand.
Hemieleotris Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X, 1916, 364 (*Eleotris latifasciatus* Meek and Hildebrand).
3509. *Hemieleotris latifasciatus* (Meek and Hildebrand).
Streams of Panama.
Eleotris latifasciatus Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X, 1912, 63, Rio Cardenis, Panama
- Genus 1208. *EROTELIS* Poey. *Esmeraldas de Mar*.
Erotelis Poey, Memorias, II, 1861, 273 (*E. valenciennesi* Poey = *Eleotris smaragdus* Cuvier and Valenciennes).
3510. *Erotelis smaragdus* (Cuvier and Valenciennes). *Esmeralda negra*; *Esmeralda de mar*.
Key West and Cuba; coral shores among algae.
Eleotris smaragdus Cuvier and Valenciennes, Hist. Nat. Poiss., XII, 1837, 173 (231), Cuba.
Erotelis valenciennesi Poey, Memorias, II, 1861, 273, Cuba.
- Genus 1209. *MICROELEOTRIS* Meek and Hildebrand.
Microeleotris Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X, 1916, 362 (*M. panamensis* Meek and Hildebrand).
3511. *Microeleotris panamensis* Meek and Hildebrand.
Pacific slope of central Panama.
Microeleotris panamensis Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X, 1916, 363, Rio Juan Diaz, Panama.
3512. *Microeleotris mindii* Meek and Hildebrand.
Mindi, near Atlantic coast of Canal Zone.
Microeleotris mindii Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X, 1916, 364, brackish creek at Mindi, Canal Zone.

Genus 1210. EVIOTA Jenkins.

Eviota Jenkins, Bull. U. S. Fish Com., XXII, 1902, 501 (*Eviota epiphanes* Jenkins).

3513. *Eviota personata* Jordan and Thompson.

Coral reefs about the Tortugas, Fla.; Garden Key.

Eviota personata Jordan and Thompson, Bull. U. S. Bur. Fish., XXIV, 1904, 251, fig. 3, Garden Key, Fla.

Genus 1211. IOGLOSSUS Bean.

Ioglossus Bean, in Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 297 (*I. callurus* Bean).

3514. *Ioglossus calliurus* Bean.

Gulf of Mexico; Snapper Banks off Pensacola, Fla.

Ioglossus calliurus Bean, in Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 297, Pensacola, Fla.

Genus 1212. GYMNELEOTRIS Bleeker.

Gymneleotris Bleeker, Esquisse d'un Syst. Nat. des Gobiod., in Archiv Néerl. Sci., IX, 1874, 304 (*Eleotris seminuda* Gunther).

3515. *Gymneleotris seminuda* (Günther).

Panama.

Eleotris seminudus Günther, Proc. Zool. Soc. Lond., 1864, 24, pl. 4, figs 2, 2a, Panama.

Genus 1213. PYCNOMMA Rutter.

Pycnomma Rutter, Proc. Calif. Acad. Sci., 3d ser., III, 1904, 252 (*P. semisquamatum* Rutter).

3516. *Pycnomma semisquamatum* Rutter.

Gulf of California.

Pycnomma semisquamatum Rutter, Proc. Calif. Acad. Sci., 3d ser., III, 1904, 252, Pl. XXIV, Gulf of California.

Genus 1214. CHRIOLEPIS Gilbert.

Chriolepis Gilbert, Proc. U. S. Nat. Mus., XIV, 1891, 557 (*C. minutillus* Gilbert).

3517. *Chriolepis minutillus* Gilbert

Gulf of California.

Chriolepis minutillus Gilbert, Proc. U. S. Nat. Mus., XIV, 1891, 558, Gulf of California, at Albatross station 2825.

Family 256. GOBIDÆ. Gobies**Genus 1215. LOPHOGOBIOUS Gill. Crested gobies.**

Lophogobius Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 240 (*Gobius cristagalli* Valenciennes, in Cuvier and Valenciennes=*Gobius cyprinoides* Pallas).

3518. *Lophogobius cyprinoides* (Pallas).

West Indies; Cuba.

Gobius cyprinoides Pallas, Spic., Zool., VIII, 1770, 17, pl. 1, fig. 5, "Amboina."

Gobius crista-galli Cuvier and Valenciennes, Hist. Nat. Poiss., XII, 1837, 98 (130), Habana.

Genus 1216. EVORTHODUS Gill.

Evorthodus Gill, Proc. Acad. Nat. Sci. Phila., XI, 1859, 195 (*E. breviceps* Gill).

3519. *Evorthodus breviceps* Gill.

Trinidad and Surinam

Evorthodus breviceps Gill, Proc. Acad. Nat. Sci. Phila., XI, 1859, 195, Trinidad.

Genus 1217. CTENOGOBIUS Gill.

Ctenogobius Gill, Ann. Lyc. Nat. Hist. N. Y., VI, 1858, 374, 430 (*C. fasciatus* Gill).

3520. *Ctenogobius fasciatus* Gill.

West Indies.

Ctenogobius fasciatus Gill, Ann. Lyc. Nat. Hist. N. Y., VI, 1858, 376, Trinidad.

- Genus 1218. RHINOGOBIUS** ⁹⁶ Gill.
Rhinogobius Gill, Proc. Acad. Nat. Sci. Phila., XI, 1859, 145 (*R. similis* Gill).
Coryphopterus Gill, loc. cit., XV, 1863, 263 (*C. glaucofrænum* Gill).
- 3521. *Rhinogobius glaucofrænum* (Gill).**
 Florida Keys; Tortugas.
Coryphopterus glaucofrænum Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 263, coast of the State of Washington; evidently an error.
- 3522. *Rhinogobius manglicola* (Jordan and Starks).**
 Pacific coast of Mexico at Mazatlan
Gobius manglicola Jordan and Starks, in Jordan, Proc. Calif. Acad. Sci., 2d ser., V, 1895, 495, Mazatlan, Mexico.
- 3523. *Rhinogobius quadriporus* (Cuvier and Valenciennes).**
 Surinam.
Gobius quadriporus Cuvier and Valenciennes, Hist. Nat. Poiss., XII, 1837, 66 (87), Surinam.
- 3524. *Rhinogobius stigmaturus* (Goode and Bean).**
 Florida Keys.
Gobius stigmaturus Goode and Bean, Proc. U. S. Nat. Mus., V, 1882, 418, no type locality given, but specimens probably from Florida Keys.
- 3525. *Rhinogobius shufeldti* (Jordan and Eigenmann).**
 Gulf coast of United States.
Gobius shufeldti Jordan and Eigenmann, Proc. U. S. Nat. Mus., IX, 1886, 495, New Orleans.
- 3526. *Rhinogobius boleosoma* (Jordan and Gilbert).**
 Gulf of Mexico, Pensacola to Key West.
Gobius boleosoma Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 295, Laguna Grande, Pensacola, Fla.
- 3527. *Rhinogobius encæomus* (Jordan and Gilbert).**
 South Carolina to Key West.
Gobius encæomus Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 611, Charleston, S. C.
- 3528. *Rhinogobius eigenmanni* (Garman).**
 Off Key West.
Gobius eigenmanni Garman, Bull. Lab. Nat. Sci. State Univ. Iowa, IV, No. 1, 1896, 88, pl. 3, fig. 1, off Key West in 60 fathoms.
- 3529. *Rhinogobius curacao* (Metzelaar).**
 Caribbean Sea.
Gobius curacao Metzelaar, Trop. Atl. Viss., 1919, 136, fig. 38, Antilles.
- 3530. *Rhinogobius mowbrayi* Bean.**
 Bermudas to Caribbean Sea.
Rhinogobius mowbrayi Bean, Field Mus. Nat. Hist., Zool., VII, 1906, 81, Challenger Bank, 28 fathoms, rock cavity, Bermudas.
- 3531. *Rhinogobius tortugæ* (Jordan).**
 Dry Tortugas, Garden Key, West Indies.
Ctenogobius tortugæ Jordan, Bull. U. S. Fish Com., XXII, 1902, 541, pl. 1, Garden Key, Tortugas.
- 3532. *Rhinogobius parvus* (Meek).**
 Rio San Francisco, La Antigua, Mexico.
Gobius parvus Meek, Field Col. Mus., Zool., III, 1902, 121, La Antigua.
- 3533. *Rhinogobius claytonii* (Meek).**
 Rio San Francisco, La Antigua, Mexico.
Gobius claytonii Meek, Field Col. Mus., Zool., III, 1902, 121, La Antigua.
- 3534. *Rhinogobius garmani* (Eigenmann and Eigenmann).**
 Dominica; Fort de France; Martinique; St. Kitts.
Gobius garmani Eigenmann and Eigenmann, Proc. Calif. Acad. Sci., 2d ser., I, 1888, 61, Dominica; Fort de France, Martinique, and St. Kitts.

* Some of the species named below may belong to *Ctenogobius*, from which this genus differs but slight y

Genus 1219. GOBIUS Linnæus.*Gobius* Linnæus, Syst Nat, Ed. X, I, 1758, 263 (*G. niger* Linnæus)**3535. *Gobius translucens* Nichols.**

Porto Rico.

Gobius translucens Nichols, Bull. Amer. Mus. Nat. Hist., XXXIV, 1915, 145, fig. 2, near San Antonio Bridge, San Juan, Porto Rico**3536. *Gobius hipoliti* Metzelaar.**

West Indies.

Gobius hipoliti Metzelaar, Bijdr. Dierk. Amsterdam, XXII, 1922, 138, with figure, West Indies.**Genus 1220. BATHYGOBIUS Bleeker. *Mapos*.***Bathygobius*⁸⁷ Bleeker, Arch. Neerl. Acad. Sci., XIII, 1878, 54 (*Gobius nebulo-punctatus* Ruppell = *Gobius fuscus* Ruppell).*Mapo* Smitt, Oefv. Kong. Vet. Akad. Stockholm, 1899, 542 (*Gobius soporator* Cuvier and Valenciennes).**3537. *Bathygobius soporator* (Cuvier and Valenciennes). *Sleeper*, *Mapo*, *Caiman*, *Oopu*.**

Barbados, Pará, Itapuaná, Cuba, Bahamas, Orange Key, Bahía, Pernambuco, St. Thomas, Charleston, Tortugas, Florida Keys, Martinique, Sao Mathias, Curaçao, Rio de Janeiro, Rio Doce

Gobius soporator Cuvier and Valenciennes, Hist. Nat. Poiss., XII, 1837, 42 (56), Martinique.? *Gobius albopunctatus* Cuvier and Valenciennes, loc. cit., 43 (57), Isle of France.? *Gobius padangensis* Bleeker, Nat. Tijds. Ned. Ind., I, 1850, 249, Padang.*Gobius catulus* Girard, Proc. Acad. Nat. Sci. Phila., X, 1858, 169, St. Joseph Island, Tex.? *Gobius breviceps* Blyth, Proc. Asia. Soc. Beng., 1858, 271, Great Andaman Island (in Jour., XXVII, 1858).*Gobius mapo* Poey, Memorias, II, 1861, 277, Cuba.*Gobius lacertus* Poey, loc. cit., 278, Cuba.*Gobius caroliniensis* Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 268, Charleston, S. C.*Gobius brunneus* Poey, Synopsis, 1868, 393, Habana.**3538. *Bathygobius fuscus* (Ruppell).**

Red Sea to Galapagos Islands.

Gobius fuscus Rüppell, Atl. Reis. Nord. Af. Fish., 1828, 137, Red Sea.*Gobius punctillatus* Rüppell, loc. cit., 138, Red Sea.*Gobius nebulo-punctatus* Ruppell, Neue Wirbelthiere, Fische, 1835, 139, Red Sea.*Gobius lineatus* Jenyns, Zool. Voy. *Beagle*, 1842, 95, pl. 19, fig. 2, Galapagos Islands.*Gobius homocyanus* Vaillant and Sauvage, Rev. Mag. Zool., III, 1875, 280, Sandwich [Hawaiian] Islands*Gobius sandwicensis* Günther, Rept. Shore Fishes, *Challenger*, I, 1880, pt. 6, 60, Honolulu.**Genus 1221. RHINOGOBIOPS Hubbs.***Rhinogobiops* Hubbs, Occ. Papers Mus. Zool. Univ. Mich., No. 169, Feb. 17, 1926, p. 1 (*Gobius nicholsii* Bean).**3539. *Rhinogobiops nicholsii* (Bean).**

Coast of British Columbia, south to southern California.

Gobius nicholsii Bean, Proc. U. S. Nat. Mus., IV, 1881, 469, Departure Bay, British Columbia.**Genus 1222. GOBIONELLUS Girard.***Gobionellus* Girard, Proc. Acad. Nat. Sci. Phila., X, 1858, 168 (*G. hastatus* Girard)*Smaragdus* Poey, Memorias, II, 1860, 280 (*Gobius smaragdus* Cuvier and Valenciennes).⁸⁷ An ill-chosen name for these shallow-water gobies.

3540. *Gobionellus oceanicus* (Pallas) *Esmeralda; Endoimi; Emerande; Bacalhao sabara*.
 Gulf coast of United States, southward through the West Indies.
Gobius oceanicus Pallas, Spic., VIII, 1770, 4, locality unknown; after Gronow.
Gobius lanceolatus Bloch, Fische Deutschlands, II, 1783, 8, pl. 38, fig. 1, Martinique.
Gobius bacalau Cuvier and Valenciennes, Hist. Nat. Poiss., XII, 1837, 90 (119), Surinam; Cayenne.
3541. *Gobionellus hastatus* Girard. *Emerald fish; Sharp-tailed goby*.
 Gulf of Mexico.
Gobionellus hastatus Girard, Proc. Acad. Nat. Sci. Phila., X, 1853, 168, St. Joseph Island, Tex.
3542. *Gobionellus smaragdus* (Cuvier and Valenciennes). *Esmeralda*.
 West Indies, south to Rio Janeiro, north to St. Augustine, Fla., and to Charleston, N. C.
Gobius smaragdus Cuvier and Valenciennes, Hist. Nat. Poiss., XII, 1837, 91 (120), Cuba.
Smaragdus valenciennesi Poey, Memorias, II, 1861, 280, Cuba; after Valenciennes.
3543. *Gobionellus sagittula* (Günther)
 Gulf of California, south to Panama.
Eucenogobius sagittula Günther, Proc. Zool. Soc. Lond., 1861, pt. 3, 371, 372, Pacific coast of Central America
Gobius longicaudus Jenkins and Evermann, Proc. U. S. Nat. Mus., XI, 1888, 146, Guaymas.
3544. *Gobionellus strigatus* (O'Shaughnessy).
 Coast of Surinam.
Eucenogobius strigatus O'Shaughnessy, Ann. Mag. Nat. Hist., ser. IV, XV, 1875, 145, Surinam.
Gobius kraussi Steindachner, Ichth. Beitr., VIII, 1879, 16, Surinam
3545. *Gobionellus bayamonensis* (Evermann and Marsh).
 Porto Rico.
Gobius bayamonensis Evermann and Marsh, Rept. U. S. Fish Com., XXV, 1899 (Dec. 19), 355, San Juan Market, Porto Rico.
3546. *Gobionellus lyricus* (Girard).
 Gulf of Mexico, from Galveston to Cuba and the Lesser Antilles.
Gobius lyricus Girard, Proc. Acad. Nat. Sci. Phila., X, 1853, 169, Brazos Santiago, Tex.
Gobius wurdemanni Girard, loc. cit., 169, Brazos Santiago.
Smaragdus costalesi Poey, Memorias, II, 1861, 280, Habana.
3547. *Gobionellus stigmaticus* (Poey).
 Coast of North Carolina, Florida Keys, West Indies, southward to Rio Janeiro; common at Habana.
Smaragdus stigmaticus Poey, Memorias, II, 1861, 281, Cuba.
3548. *Gobionellus microdon* (Gilbert).
 San Juan Lagoon, west coast of Mexico.
Gobius microdon Gilbert, Proc. U. S. Nat. Mus., XIV, 1891, 554, San Juan Lagoon, north of Rio Ahomè, Mexico.
- Genus 1223. *ZONOGOBIUS* Bleeker.
Zonogobius Bleeker, Esquisse Syst. Nat. Gobioiden, 1874, 323 (*Gobius semifasciatus* Kner).
3549. *Zonogobius zebra* (Gilbert).
 Pacific coast of Mexico and southern California.
Gobius zebra Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 73, Albatross station 2989, Pacific coast of Mexico.
- Genus 1224. *EUCTENGOBIUS* Gill
Eucenogobius Gill, Ann. Lyc. Nat. Hist. N. Y., VII, 1859, VII, 45 (*E. badius* Gill).

- 3550. Euctenogobius badius** Gill
Mouth of Amazon; recorded also from Martinique.
Euctenogobius badius Gill, Ann. Lyc. Nat. Hist. N. Y., VII, 1859, 45, Amazon.
Gobius bosci Sauvage, Bull. Soc. Philom. Paris, IV, 1880, 44, Martinique; not *Gobius bosci* Lacépède.
- 3551. Euctenogobius poeyi** (Steindachner).
Barbados
Gobius poeyi Steindachner, Ichth. Notizen, VI, 1867, 44, Barbados.
- Genus 1225. LYTHRYPNUS** Jordan and Evermann.
Lythrypnus Jordan and Evermann, Check List, 1895, 458 (*Gobius dalli* Gilbert).
- 3552. Lythrypnus dalli** (Gilbert)
Catalina Harbor, Calif.
Gobius dalli Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 73, Avalon, Catalina Harbor, Calif., in 35 fathoms.
- Genus 1226. XENOGOBIOUS** Metzelaar.
Xenogobius Metzelaar, Trop. Atlant. Vissch., 1919, 140 (*X. weberi* Metzelaar).
- 3553. Xenogobius weberi** Metzelaar
Caribbean Sea.
Xenogobius weberi Metzelaar, Trop. Atlant. Vissch., 1919, 140, fig. 40, Curaçao.
- Genus 1227. ELACATINUS** Jordan.
Elacatinus Jordan, Bull. U. S. Fish Com., XXII, 1902, 542 (*E. oceanops* Jordan).
- 3554. Elacatinus oceanops** Jordan.
Garden Key, Tortugas.
Elacatinus oceanops Jordan, Bull. U. S. Fish Com., XXII, 1902, 542, pl. 2, Garden Key, Fla.
- Genus 1228. CHONOPHORUS** Poey.
Chonophorus Poey, Memorias, II, 1860, 274 (*C. bucculentus* Poey = *Gobius banana* Cuvier and Valenciennes; published in July, 1860, and therefore presumably older in date than *Awaous*)
Awaous Steindachner, Ver. Mat. Phrs., XLII, 1860, 289 (*Gobius ocellaris* Cuvier and Valenciennes; in an article presented on July 12, 1860).
- 3555. Chonophorus banana** (Cuvier and Valenciennes). *Guavina hoyera*; *Aboma de rio*.
West Indies; both coasts of Mexico, south to Brazil; Cuba; Sinaloa; common; Lower California to Panama.
? *Gobius tarasica* Lichtenstein, Abh. Akad. Wiss. Berlin, 1822, 273, Brazil; not *Tajaasica* Macgregor.
Gobius banana Cuvier and Valenciennes, Hist. Nat. Poiss., XII, 1837, 78 (103), San Domingo.
Gobius martinicus Cuvier and Valenciennes, loc. cit., 79 (105), Martinique.
Chonophorus bucculentus Poey, Memorias, II, 1860, 275, Cuba.
Chonophorus contractus Poey, loc. cit., Cuba.
Gobius dolichocephalus Cope, Trans. Amer. Phil. Soc. Phila., XIII, 1869, 403, near Orizaba, Mexico.
Euctenogobius latus O'Shaughnessy, Ann. Mag. Nat. Hist., ser. 4, XV, 1875, 146, Bahia.
- 3556. Chonophorus mexicanus** (Günther).
Fresh-water streams of Atlantic slope of Mexico.
Gobius mexicanus Günther, Cat., III, 1861, 61, Mexico.
- 3557. Chonophorus nelsoni** (Evermann).
Streams of Sinaloa.
Awaous nelsoni Evermann, Proc. Biol. Soc. Wash., XII, 1898, 3, fresh-water pools at Rosario, Sinaloa, Mexico.
- Genus 1229. GNATHOLEPIS** Bleeker.
Gnatholepis Bleeker, Esquisse Syst. Nat. Gobioiden, 1874, 318 (*Gobius anjerensis* Bleeker).

3558. *Gnatholepis thompsoni* Jordan.
Bush Key, Tortugas.
Gnatholepis thompsoni Jordan, Bull. U. S. Fish Com., XXII, 1902, 541,
pl. 1, Bush Key, Tortugas.
- Genus 1230. *BOLLMANNIA* Jordan.
Bollmannia Jordan, Proc. U. S. Nat. Mus., XII, 1889, 164 (*B. chlamydes*
Jordan).
3559. *Bollmannia chlamydes* Jordan.
Pacific Ocean off coast of Colombia.
Bollmannia chlamydes Jordan, Proc. U. S. Nat. Mus., XII, 1889, 164,
Pacific Ocean off coast of Colombia.
3560. *Bollmannia ocellata* Gilbert.
Gulf of California.
Bollmannia ocellata Gilbert, Proc. U. S. Nat. Mus., XIV, 1891, 555,
northern part of Gulf of California at *Albatross* stations 3031 and 3035
in 30 and 33 fathoms.
3561. *Bollmannia macropoma* Gilbert.
Gulf of California.
Bollmannia macropoma Gilbert, Proc. U. S. Nat. Mus., XIV, 1891,
556, near La Paz, Gulf of California, at *Albatross* station 2996 in
112 fathoms.
3562. *Bollmannia stigmatura* Gilbert.
Northern part of the Gulf of California.
Bollmannia stigmatura Gilbert, Proc. U. S. Nat. Mus., XIV, 1891, 556,
Gulf of California at *Albatross* stations 3016 and 3017 in 76 and 58
fathoms.
3563. *Bollmannia boqueronensis* Evermann and Marsh.
Porto Rico.
Bollmannia boqueronensis Evermann and Marsh, Rept. U. S. Fish Com.,
XXV, 1899 (Dec. 19), 356, Ensenada del Boqueron, Porto Rico.
- Genus 1231. *ABOMA* Jordan and Starks.
Aboma Jordan and Starks, Fishes of Sinaloa, Proc. Calif. Acad. Sci.,
2d ser., V, 1895, 497 (*A. etheostoma* Jordan and Starks).
3564. *Aboma etheostoma* Jordan and Starks.
Pacific coast of Mexico.
Aboma etheostoma Jordan and Starks, Fishes of Sinaloa, Proc. Calif.
Acad. Sci., 2d ser., V, 1895, 493, pl. 50, Mazatlan, Mexico.
3565. *Abomia lucretiæ* (Eigenmann and Eigenmann).
Pearl Island, Gulf of Panama.
Gobius lucretiæ Eigenmann and Eigenmann, Proc. Calif. Acad. Sci.,
2d ser., I, 1888, 57, Pearl Island, Gulf of Panama.
3566. *Aboma chiquita* (Jenkins and Evermann).
Gulf of California.
Gobius chiquita Jenkins and Evermann, Proc. U. S. Nat. Mus., XI,
1888, 146, Guaymas, Sonora, Mexico.
- Genus 1232. *MICROGOBIUS* Poey.
Microgobius Poey, Enumeratio, 126, 1876 (*M. signatus* Poey).
Zalypnus Jordan and Evermann, Check List, 1895, 459 (*Gobius em-*
blematicus Jordan and Gilbert).
3567. *Microgobius emblematicus* (Jordan and Gilbert).
Lower California to Panama.
Gobius emblematicus Jordan and Gilbert, Bull. U. S. Fish Com., I, 1881,
330, Bay of Panama.
Microgobius cyclolepis Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 74,
Albatross station 3020, Lower California.
3568. *Microgobius signatus* Poey.
West Indies; common about Cuba.
Microgobius signatus Poey, Enumeratio, 1876, 127, pl. 5, fig. 3, Cuba.
3569. *Microgobius gulosus* (Girard).
Coast of Florida to Texas; common north to Indian River, Fla.
Gobius gulosus Girard, Proc. Acad. Nat. Sci. Phila., X, 1858, 169,
Indianola, Tex.

- 3570. *Microgobius meeki*** Evermann and Marsh.
Culebra and Vieques Islands, Porto Rico.
Microgobius meeki Evermann and Marsh, Rept. U. S. Fish Com., XXV, 1899 (Dec. 19), 356, between Vieques and Culebra Islands east of Porto Rico
- 3571. *Microgobius thalassinus*** (Jordan and Gilbert)
South Atlantic coast, Virginia to South Carolina.
Gobius thalassinus Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 612, Charleston Harbor, S. C.
Microgobius euleps Eigenmann and Eigenmann, Proc. Calif. Acad. Sci., 2d ser., I, 1888, 69, Fortress Monroe, Va.
- 3572. *Microgobius miraflorensis*** Gilbert and Starks
Bay of Panama.
Microgobius miraflorensis Gilbert and Starks, Mem. Calif. Acad. Sci., IV, 1904, 176, Pl. XXIX, Bay of Panama.
- Genus 1233. EUCYCLOGOBIUS** Gill.
Eucyclogobius Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 279 (*Gobius newberryi* Girard).
- 3573. *Eucyclogobius newberryi*** (Girard).
Streams of California, in small brooks near the sea; locally common in San Luis Obispo Creek.
Gobius newberryi Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 136, Tomales Bay, Calif.
- Genus 1234. LEPIDOGOBIUS** Gill.
Lepidogobius Gill, Ann. Lyc. Nat. Hist. N. Y., VII, 1859, 14 (*Gobius lepidus* Girard).
Cyclogobius Steindachner, Sitzb. Kais. Akad. Wiss. Wien, XLII, 1860, 284 (*Gobius lepidus* Girard).
- 3574. *Lepidogobius lepidus*** (Girard).
Pacific coast of North America, from Vancouver Island to Lower California, in rather deep water off San Francisco Bay.
Gobius lepidus Girard, Pac. R. R. Surv., X, pt. 4, Fishes, 1858, 127, 25a, figs. 5 and 6; substitute for *Gobius gracilis*, preoccupied.
Gobius gracilis Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 134, San Francisco.
- Genus 1235. GILLICHTHYS** Cooper.
Gillichthys Cooper, Proc. Calif. Acad. Nat. Sci., III, 1863, 109 (*G. mirabilis* Cooper).
Gillia Gunther, Zool. Rec., 1864, 137 (*Gillichthys mirabilis* Cooper); substitute name preoccupied.
Aprolepis Hubbs, Occ. Papers, Univ. Mich. Mus. Zool., I, 1921, 99 (*A. barbaræ* Hubbs); young of *Gillichthys mirabilis*.
- 3575. *Gillichthys mirabilis*** Cooper. *Long-jawed goby*.
Pacific coast of North America, from San Francisco to Guaymas.
Gillichthys mirabilis Cooper, Proc. Calif. Acad. Nat. Sci., III, 1863, 109, San Diego Bay.
Gobius townsendi Eigenmann and Eigenmann, Proc. U. S. Nat. Mus., XI, 1888, 463, San Diego, Calif.
Aprolepis barbaræ Hubbs, Occ. Papers Univ. Mich. Mus. Zool., I, 1921, 99, young.
- 3576. *Gillichthys detrusus*** Gilbert and Scofield.
Horseshoe Bend, near mouth of Colorado River, in Mexico.
Gillichthys detrusus Gilbert and Scofield, Proc. U. S. Nat. Mus., XX, 1896, 498, near mouth of Colorado River.
- Genus 1236. QUIETULA** Jordan and Evermann.
Quietula Jordan and Evermann, in Jordan and Starks, Proc. Calif. Acad. Sci., 2d ser., V, 1895, 839 (*Gillichthys y-cauda* Jenkins and Evermann).
- 3577. *Quietula y-cauda*** (Jenkins and Evermann).
Pacific coast of North America from Guaymas to Vancouver Island.
Gillichthys y-cauda Jenkins and Evermann, Proc. U. S. Nat. Mus., XI, 1888, 147, Guaymas, Sonora.
Gillichthys guaymasiæ Jenkins and Evermann, loc. cit., 148, Guaymas, Sonora.

Genus 1237. CLEVELANDIA Eigenmann and Eigenmann.

Clevelandia Eigenmann and Eigenmann, Proc. Calif. Acad. Sci., 2d ser., I, 1888, 73 (*C. longipinnis* Eigenmann and Eigenmann=*Clevelandia rosæ* Jordan and Evermann)

3578. *Clevelandia ios* (Jordan and Gilbert).

Puget Sound and neighboring waters.

Gobiosoma ios Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 437, Saanich Arm, Vancouver Island.

Clevelandia longipinnis Eigenmann and Eigenmann, Proc. Calif. Acad. Sci., 2d ser., I, 1888, 73; not of Steindachner.

Clevelandia rosæ Jordan and Evermann, Proc. Calif. Acad. Sci., 2d ser., VI, 1896, 229, San Diego, Calif.

Genus 1238. ILYPNUS Jordan and Evermann.

Ilypnus Jordan and Evermann, Check List, 1895, 460 (*Lepidogobius gilberti* Eigenmann and Eigenmann).

3579. *Ilypnus gilberti* (Eigenmann and Eigenmann).

San Diego Bay and southward; abundant at Magdalena Bay, Conception Bay, and St. George's Bay in the Gulf of California.

Lepidogobius gilberti Eigenmann and Eigenmann, Proc. U. S. Nat. Mus., XI, 1888, 464, San Diego Bay, Calif.

Genus 1239. EVERMANNIA Jordan.

Evermannia Jordan, Proc. Calif. Acad. Sci., 2d ser., IV, 1896, 592 (*Gobiosoma zosterurum* Jordan and Gilbert).

3580. *Evermannia zosterura* (Jordan and Gilbert)

Pacific coast of Mexico at Mazatlan, Mexico

Gobiosoma zosterurum Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 361, Mazatlan.

3581. *Evermannia longipinnis* (Steindachner).

Gulf of California.

Gobiosoma longipinne Steindachner, Ichth. Beitr., VIII, 1879, 27, Las Animas Island, Gulf of California.

3582. *Evermannia panamensis* Gilbert and Starks.

Panama Bay.

Evermannia panamensis Gilbert and Starks, Mem. Calif. Acad. Sci., VI, 1904, 179, Pl. XXX, Panama Bay.

Genus 1240. GARMANNIA Jordan and Evermann. *Half-naked gobies.*

Garmannia Jordan and Evermann, Proc. Calif. Acad. Sci., 2d ser., V, 1895, 496, pl. 49 (*Gobius paradoxus* Gunther).

3583. *Garmannia paradoxa* (Günther).

Pacific coast of Mexico, Mazatlan to Panama.

Gobius paradoxus Gunther, Cat., III, 1861, 549, Pacific coast of Central America.

3584. *Garmannia hemigymna* (Eigenmann and Eigenmann)

West Indies.

Gobius hemigymnus Eigenmann and Eigenmann, Proc. Calif. Acad. Sci., 2d ser., I, 1888, 66, dredged in the West Indies.

3585. *Garmannia rubra* Rosen.

Bahamas.

Garmannia rubra Rosen, Arsekr. Univ. Lund, VII, 1912, 50, Bahamas.

Genus 1241. ENYPNIAS Jordan and Evermann.

Enypnias Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2233 (*Gobius seminudus* Günther).

3586. *Enypnias seminudus* (Günther).

Pacific coast of Central America.

Gobius seminudus Günther, Cat., III, 1861, 554, Pacific coast of Central America.

Genus 1242. GOBIOSOMA Girard.

Gobiosoma Girard, Proc. Acad. Nat. Sci. Phila., X, 1858, 169 (*Gobius alepidotus* Bloch and Schneider=*Gobius bosci* Lacépède).

3587. *Gobiosoma bosci* (Lacépède). *Naked goby*; *Clinging goby*; *Goby*, *Variegated goby*; *Mud-creeper*; *Oysterfish*.
Atlantic coast of United States, Cape Cod to Florida.
Gobius bosci Lacépède, Hist. Nat. Poiss., II, 1798, 555, pl. 16, fig. 1, Charleston, S. C.
Gobius alepidotus Bloch and Schneider, Syst. Ichth., 1801, 547; after Lacépède.
Gobius viridipallidus Mitchill, Trans. Lit. and Phil. Soc. N. Y., I, 1814, 379, pl. 1, fig. 8, New York.
3588. *Gobiosoma molestum* Girard.
Gulf coast of the United States from Key West to Texas, and south to Bahia.
Gobiosoma molestum Girard, Proc. Acad. Nat. Sci. Phila., X, 1858, 169, Indianola, Tex.
Gobiosoma alepidotum Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 297, Laguna Grande, Pensacola, Fla.
3589. *Gobiosoma histrio* Jordan.
Known only from the Gulf of California at Guaymas.
Gobiosoma histrio Jordan, Proc. U. S. Nat. Mus., VII, 1884, 260, Guaymas, Mexico.
3590. *Gobiosoma crescentale* Gilbert.
Gulf of California.
Gobiosoma crescentalis Gilbert, Proc. U. S. Nat. Mus., XIV, 1891, 557, Gulf of California, at Albatross station 2825.
3591. *Gobiosoma multifasciatum* Steindachner
West Indies; known from Cuba, St. Thomas, and the Lesser Antilles.
Gobiosoma multifasciatum Steindachner, Ichth. Beitr., V, 1876, 183, Lesser Antilles.
Gobius lineatus Poey, Memorias, II, 1861, 424, Cuba; not of Jenyns.
3592. *Gobiosoma horsti* Metzelaar.
Curaçao, Caribbean Sea.
Gobiosoma horsti Metzelaar, Marine Fishes Lesser Antilles, 1923, Curaçao.
3593. *Gobiosoma longum* Nichols.
West Indies, north to Florida.
Gobiosoma longum Nichols, Bull. Amer. Mus. Nat. Hist., XXXIII, 1914, 143, fig. 1, Florida.
- Genus 1243. *BARBULIFER* Eigenmann and Eigenmann.
Barbulifer Eigenmann and Eigenmann, Proc. Calif. Acad. Sci., 2d ser. I, 1888, 70 (*B. papillosus* Eigenmann and Eigenmann = *Gobiosoma cauthæcum* Jordan and Gilbert).
3594. *Barbulifer cauthæcus* (Jordan and Gilbert).
About Key West, Fla.
Gobiosoma cauthæcum Jordan and Gilbert, Proc. U. S. Nat. Mus., VII, 1884, 29, Key West, Fla.
Barbulifer papillosus Eigenmann and Eigenmann, Proc. Calif. Acad. Sci., 2d ser., I, 1888, 70, Key West, Fla.
- Genus 1244. *EVERMANNICHTHYS* Metzelaar.
Evermannichthys Metzelaar, Trop. Atl. Vissch., 1919, 139 (*E. spongicola* Metzelaar).
Radcliffei Hubbs, Occ. Papers, Mus. Zool. Univ. Mich., No. 99, 1921, 2 (*Garmannia spongicola* Radcliffe).
3595. *Evermannichthys spongicola* (Radcliffe).
Off shore banks of North Carolina and Florida in cavities of sponges.
Garmannia spongicola Radcliffe, Proc. U. S. Nat. Mus., LII, 1917, 423, off Cape Hatteras, N. C., and near Tarpon Springs, west coast of Florida.

- 3596. *Evermannichthys metzelaari* Hubbs.**
 Caribbean sea, living in sponges.
Evermannichthys spongicola Metzelaar, Trop. Atl. Vissch., 1919, 189,
 figs. 39 and 40, 139, Curaçao, name preoccupied by *Evermannichthys*
spongicola (Radcliffe).
Evermannichthys metzelaari Hubbs, Occ. Papers Mus. Zool. Univ.
 Mich., No. 144, Dec. 21, 1923, pl. 1, Curaçao; substitute for *E.*
spongicola Metzelaar, preoccupied.
- Genus 1245. LETHOPS** Hubbs.
Lethops Hubbs, Occ. Papers Univ. Mich. Mus. Zool., 1925 (*Lethops*
connectens Hubbs).
- 3597. *Lethops connectens* Hubbs.**
 Coast of California in tide pools.
Lethops connectens Hubbs, Occ. Papers Mus. Zool. Univ. Mich., 1925,
 Carmel Bay; Point Firmin, near Los Angeles.
- Genus 1246. TYPHLOGOBIUS** Steindachner. *Blind gobies.*
Typhlogobius Steindachner, Ichth. Beitr., VIII, 1879, 24 (*T. cali-*
iforniensis Steindachner).
Othonops Rosa Smith (Mrs. Eigenmann), Proc. U. S. Nat. Mus., II,
 1881, 19 (*O. eos* Smith = *Typhlogobius californiensis* Steindachner).
- 3598. *Typhlogobius californiensis* Steindachner.** *Blind goby of Point Loma;*
Pinkfish
 Coast of Lower California, from San Diego southward to Cedros Island;
 especially common at Point Loma.
Typhlogobius californiensis Steindachner, Ichth. Beitr., VIII, 1879, 24,
 False Bay, San Diego, Calif.
Othonops eos Rosa Smith, Proc. U. S. Nat. Mus., II, 1881, 19, Point
 Loma, San Diego, Calif.
- Genus 1247. SICYDIUM** Cuvier and Valenciennes.
Sicydium Cuvier and Valenciennes, Hist. Nat. Poiss., XII, 1837, 126
 (168) (*Gobius plumieri* Bloch).
- 3599. *Sicydium plumieri* (Bloch).** *Sirago.*
 Fresh waters of the West Indies.
Gobius plumieri Bloch, Ichth., 1786, 125, pl. 178, fig. 3, Martinique; on
 a drawing by Plumier.
Sicydium siragus Poey, Memorias, II, 1861, 278, Santiago de Cuba.
- 3600. *Sicydium caguitæ* Evermann and Marsh.**
 Porto Rico.
Sicydium caguitæ Evermann and Marsh, Rept. U. S. Fish Com., XXV,
 1899 (Dec. 19), 355, Rio de Caguitas at Caguas, Porto Rico.
- 3601. *Sicydium vincente* Jordan and Evermann.**
 Kingston, St. Vincent Island; Haiti.
Sicydium vincente Jordan and Evermann, Check List, 1895, 45, St.
 Vincent Island.
- 3602. *Sicydium antillarum* Ogilvie-Grant.**
 Barbados.
Sicydium antillarum Ogilvie-Grant, Proc. Zool. Soc. Lond., 1884, 157,
 Barbados.
- 3603. *Sicydium punctatum* Perugia.**
 Martinique.
Sicydium punctatum Perugia, Annali del Museo Civico di Storia
 Naturali di Genova, ser. 2, XVI, 1896, 18, Martinique.
- 3604. *Sicydium buscki* Evermann and Clark.**
 Santo Domingo.
Sicydium buscki Evermann and Clark, Proc. U. S. Nat. Mus., XXX,
 1906, 854, fig. 3, San Francisco Mountain, Santo Domingo.
- Genus 1248. COTYLOPUS** Guichenot.
Cotylopus Guichenot, Notes sur l'Isle de la Réunion, II,
 1862, annex b., 9 (*C. acutipinnis*).
Sicya Jordan and Evermann, Check List, 1895, 456, (*Sicydium gymno-*
gaster Ogilvie-Grant).

3605. *Cotylopus salvini* (Ogilvie-Grant).
Streams near Panama.
Sicydium salvini Ogilvie-Grant, Proc. Zool. Soc. Lond., 1884, 159, pl. 12, fig. 2, Panama.
3606. *Cotylopus cocoensis* Heller and Snodgrass
Chatham Bay, Cocos Island, northwest of Panama.
Cotylopus cocoensis Heller and Snodgrass, Proc. Wash. Acad. Sci., V, 1903, 211, Pl. XI, Cocos Island.
3607. *Cotylopus punctatus* Regan.
Tequesixtlan, Mexico.
Cotylopus punctatus Regan, Ann. Mag. Nat. Hist., ser. 7, XVI, 1905, 362, Tequesixtlan, Mexico.

Family 257. GOBIOIDIDÆ

Genus 1249. GOBIOIDES Lacépède.

Gobioides Lacépède, Hist. Nat. Poiss., II, 1800, 580 (*G. broussonnetii* Lacépède).

3608. *Gobioides broussonnetii* Lacépède.
West Indies to Brazil; once taken near New Orleans.
Gobioides broussonnetii Lacépède, Hist. Nat. Poiss., II, 1800, 580, probably from Surinam; "given by Holland to France."
Gobius brasiliensis Bloch and Schneider, Syst. Ichth., 1801, 69, Brazil.
Gobius oblongus Bloch and Schneider, loc. cit., 548; based on Lacépède.
Gobioides barreto Poey, Memorias, II, 1861, 282, Cuba.
Amblyopsis mexicanus O'Shaughnessy, Ann. Mag. Nat. Hist., ser. 4, XV, 1875, 147, Mexico.

Genus 1250. TYNTLASTES Günther.

Tyntlastes Günther, Proc. Zool. Soc. Lond., 1862, 193 (*Amblyopus sagitta* Günther).

3609. *Tyntlastes sagitta* (Günther).
Coast of Lower California.
Amblyopus sagitta Günther, Proc. Zool. Soc. Lond., 1862, 193, "California"; probably from Lower California.
3610. *Tyntlastes brevis* (Günther).
Panama.
Amblyopus brevis Günther, Proc. Zool. Soc. Lond., 1864, 151, Panama.
- Genus 1251. CAYENNIA Sauvage.
Cayennia Sauvage, Bull. Soc. Philom., ser. 7, IV, 1880, 57 (*C. guichenoti* Sauvage).
3611. *Cayennia guichenoti* Sauvage.
Cayenne, French Guiana.
Cayennia guichenoti Sauvage, Bull. Soc. Philom., ser. 7, IV, 1880, 57, Cayenne.

Order WW. DISCOCEPHALI

Family 258. ECHENEIDÆ. Remoras

Genus 1252. ECHENEIS Linnæus.

Echeneis Linnæus, Syst. Nat., Ed. X, 1758, 261 (*E. naucrates* Linnæus, as first restricted by Gill, 1862).

Leptecheneis Gill, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 60 (*Echeneis naucrates* Linnæus).

3612. *Echeneis naucrates* Linnæus. *Sharksucker; Pega; Pegador; Suckingfish; White-tailed remora; Indian remora*
Warm seas, universally distributed; common north to Cape Cod and San Francisco.
Echeneis naucrates (misprint for *naucrates*) Linnæus, Syst. Nat., Ed. X, 1758, 261, Pelago Indico.
Echeneis albacauda Mitchill, Amer. Month. Mag., II, 1818, 244, New York.
Echeneis lunata Bancroft, Proc. Comm. Zool. Soc., I, 1830, 124, Kingston, Jamaica.

- Echeneis vittata* Lowe, Proc. Zool. Soc. Lond., 1839, 89, Madeira.
Echeneis guarcan Poey, Memorias, II, 1861, 248, Cuba.
Echeneis verticalis Poey, loc. cit., 253, Cuba.
Echeneis metallica Poey, loc. cit., 252, Cuba.
Echeneis fusca Gronow, Cat. Fish., ed. Gray, 1854, 92; after Linnæus.
Echeneis neucratoides Zuieww, Nova Acta Acad. Sci. Imp. Petropol., IV, 1789, 279, no locality.
Echeneis lineata Holbrook, Ichth. South Carolina, 1855, 101, Charleston, S. C.; not of Menzies.
Echeneis holbrookii Gunther, Cat., II, 1860, 382, Jamaica.

Genus 1253. REMILEGIA Gill.

- Remilegia* Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 239 (*Echeneis scutata* Gunther).

3613. Remilegia australis (Bennett).

- Tropical seas; recorded by Doctor Lutken from 10° N., 39° W.
Echeneis australis Bennett, Nar Whaling Voyage, II, 1840, 273, pls. 24-26.
Echeneis scutata Gunther, Ann. Mag. Nat. Hist., 1860, 401, pl. 10, fig. B, Ceylon.

Genus 1254. REMORA Forster.

- Remora* Forster, Cat. Anim. N. Amer., 1770, 20 (*Echeneis remora* Linnæus).

3614. Remora remora (Linnæus) Remora; Sucker, Pega.

- Warm seas, north to New York and San Francisco.
Echeneis remora Linnæus, Syst. Nat., Ed. X, 1758, 260, Pelago Indico.
Echeneis squalipeta Daldorf, Skrivt. Naturrh. Selsk., II, 1793, 157, Atlantic Ocean between the tropics.
Echeneis jacobæa Lowe, Proc. Zool. Soc. Lond., 1839, 89, Madeira.
Echeneis remoroides Bleeker, Natur. Tijd. Ned. Ind. (Batæ, IX, 1855, 70, Batæ).
Echeneis parva Gronow, Cat. Fish., ed. Gray, 1854, 92, no locality; after Linnæus.
Echeneis postica Poey, Memorias, II, 1861, 255, Habana.

Genus 1255. REMORINA Jordan and Evermann.

- Remorina* Jordan and Evermann, Check List, 1895, 490 (*Echeneis albescens* Temminck and Schlegel).

3615. Remorina albescens (Temminck and Schlegel).

- Tropical Pacific, northward to San Francisco and Japan; common at Galapagos Islands.
Echeneis albescens Temminck and Schlegel, Fauna Japonica, Poiss., 1845, 272, pl. 120, fig. 4, Nagasaki, Japan.

Genus 1256. REMOROPSIS Gill.

- Remoropsis* Gill, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 60 (*Echeneis brachyptera* Lowe).

3616. Remoropsis brachyptera (Lowe). Swordfish sucker.

- Warm seas; occasionally north to Cape Cod.
Echeneis brachyptera Lowe, Proc. Zool. Soc. Lond., 1839, 89, Madeira.
Echeneis sexdecim-lamellata Eydoux and Gervais, Voy. Favorite, V, 1839, 77, pl. 31, Indian Ocean.
Echeneis quatuordecimlamnatus Storer, Rept. Fishes Mass., 1839, 155, Holmes Hole.
Echeneis pallida Temminck and Schlegel, Fauna Japonica, Poiss., 1845, 271, pl. 120, fig. 2, 3, Japan.
Echeneis neuhofti Bleeker, Sumatra, Naturk. Tijd. Neder. Indie, IV, 1853, 279, Sumatra, Priaman.

Genus 1257. PHTHEIRICHTHYS Gill.

- Phiheirichthys* Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 239 (*Echeneis lineata* Menzies).

3617. Phtheirichthys tropicus (Euphrasen).

- Tropical seas, ranging north to South Carolina and Pensacola.
Echeneis tropica Euphrasen, Nya. Handl., XII, 1791, 315, Atlantic between the tropics.
Echeneis apicalis Poey, Memorias, II, 1861, 254, Cuba.
?Echeneis sphyrenarum Poey, loc. cit., 255, Cuba, on barracudas.

Genus 1258. RHOMBOCHIRUS Gill.

Rhombochirus Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 88 (*Echeneis osteochir* Cuvier).

3618. Rhombochirus osteochir (Cuvier). *Spearfish sucker*.

West Indies, north to Cape Cod.

Echeneis osteochir Cuvier, Règne Animal, ed. 2, II, 1829, 348, no locality given.

Echeneis terapleurorum Poey, Memorias, II, 1861, 256, Cuba.

Order XX. JUGULARES**Family 259. DRACONETTIDÆ****Genus 1259. DRACONETTA** Jordan and Fowler.

Draconetta Jordan and Fowler, Proc. U. S. Nat. Mus., XXV, 1903, 939 (*D. xenica* Jordan and Fowler).

3619. Draconetta acanthopoma Regan.

Depths of north Atlantic

Draconetta acanthopoma Regan, Ann. Mag. Nat. Hist., May, 1904; north Atlantic, in deep water.

Family 260. CALLIONYMIDÆ. Dragonets**Genus 1260. CALLIONYMUS** Linnæus.

Callionymus Linnæus, Syst. Nat., Ed. X, 1758, 249, (*C. lyra* Linnæus).

3620. Callionymus bairdi Jordan.

Snapper Banks, Gulf of Mexico, between Pensacola and Tampa, Fla.

Callionymus bairdi Jordan, Proc., U. S. Nat. Mus., X, 1887, 501, Snapper Banks off Pensacola, Fla.

3621. Callionymus agassizii Goode and Bean.

West Indies off Barbados and Santa Cruz

Callionymus agassizii Goode and Bean, Three Cruises of the *Blake*, II, 1888, 29, fig., Gulf of Mexico.

Callionymus himantophorus Goode and Bean, Oceanic Ichth., 1895, 296, figs. 268 A and B, off Barbados in 209 fathoms.

3622. Callionymus calliurus Eigenmann and Eigenmann.

Key West, Fla.

Callionymus calliurus Eigenmann and Eigenmann, Proc., Calif. Acad. Sci., 2d ser., I, 1888, 76, South Beach, Key West, Fla.

3623. Callionymus pauciradiatus Gill.

Matanzas, Cuba.

Callionymus pauciradiatus Gill, Ann. Lyc. Nat. Hist. N. Y., VIII, 1867, 143, Matanzas, Cuba.

3624. Callionymus bermudarum Barbour.

Castle Island, Bermudas.

Callionymus bermudarum Barbour, Bull. Mus. Comp. Zool., XLVI, 1905, No. 7, 129, Castle Island, Bermudas.

3625. Callionymus boekei Metzelaar.

Caribbean Sea.

Callionymus boekei Metzelaar, Trop. Atl. Vissch., 1916, 149, fig. 47, Curaçao.

3626. Callionymus sancti-eustatii Metzelaar.

Callionymus sancti-eustatii Metzelaar, Trop. Atl. Vissch., 1916, 150, fig. 47, St. Eustatius.

3627. Callionymus atrilabiatatus Garman.

Off Bay of Panama in deep water.

Callionymus atrilabiatatus Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 122, off Bay of Panama.

Family 261. PTEROPSARIDÆ

Genus 1261. HYPsicOMETES Goode.

Hypsicometes Goode, Proc. U. S. Nat. Mus., III, 1880, 347 (*H. gobioides* Goode).

3628. *Hypsicometes gobioides* Goode.

Gulf Stream.

Hypsicometes gobioides Goode, Proc. U. S. Nat. Mus., III, 1880, 348, Gulf Stream at Albatross station 871, 40° 2' 54" N., 70° 23' 40" W., in 115 fathoms.

Family 262. AMMODYTIDÆ. Sand lances or sand launces

Genus 1262. AMMODYTES Linnæus. *Sand launces*; *Sand lances*.

Ammodytes Linnæus, Syst. Nat., Ed. X, 1758, 247 (*A. tobianus* Linnæus).

Argyrotaenia Gill, Fishes East Coast U. S., Suppl to Proc. Acad. Nat. Sci. Phila., XIII, 1861, 40 (*Ammodytes vittatus* DeKay; probably a deformed example).

3629. *Ammodytes americanus* DeKay. *Sand lance*; *Sand lance*; *Sand eel*; *Lant*.

Newfoundland to Cape May and Cape Hatteras; abundant on sandy shores.

Ammodytes americanus DeKay, New York Fauna: Fishes, 1842, 317, Stratford, Conn.

Ammodytes vittatus DeKay, loc. cit., 318, pl. 60, fig. 197, New York.

3630. *Ammodytes dubius* Reinhardt.

Greenland to Cape Cod.

Ammodytes dubius Reinhardt, Dansk. Vidensk. Selsk. Afhandl., VII, 1838, 131, Greenland.

3631. *Ammodytes personatus* Girard. *Sand lance*; *Sand lance*.

Japan to Alaska, south to Monterey, Calif.

Ammodytes personatus Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 137, Cape Flattery, Wash.

3632. *Ammodytes alascanus* Cope *Alaska sand lance*

North Pacific coast of North America, Sitka to Aleutian Islands.

Ammodytes alascanus Cope, Proc. Am. Phil. Soc., XIII, 1873, 30, Sitka, Alaska.

Family 263. BLEEKERIIDÆ

Genus 1263. RHYNCHIAs Gill.

Rhynchias Gill, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2841 (*Ammodytes septipinnis* Pallas); species and genus doubtful, not seen by recent authors.

3633. *Rhynchias septipinnis* (Pallas).

Kamchatka.

Ammodytes septipinnis Pallas, Rosso-Asiat., III, 1811, 227, Tab., XLVIII, fig. 3, Kamchatka.

Family 264. BATHYMASTERIDÆ. Ronquils

Genus 1264. BATHYMASTER Cope.

Bathymaster Cope, Proc. Amer. Phil. Soc., XIII, 1873, 31 (*B. signatus* Cope).

3634. *Bathymaster signatus* Cope.

Shores of Alaska.

Bathymaster signatus Cope, Proc. Amer. Phil. Soc. XIII, 1873, 31, near Sitka, Alaska.

3635. *Bathymaster cæruleofasciatus* Gilbert and Burke.

Southern Bering Sea.

Bathymaster cæruleofasciatus Gilbert and Burke, Bull. U. S. Bur. Fish., XXX, 1910, 84, fig. 29, Agattu Island, Alaska.

Genus 1265. RONQUILUS Jordan and Starks.

Ronquilus Jordan and Starks, Proc. Calif. Acad. Sci., 2d ser., V, 1895, 838 (*Bathymaster jordanii* Gilbert).

3636. *Bonquillus jordanii* (Gilbert). *Ronquil*.

Alaska to Puget Sound.

Rathymaster jordanii Gilbert, Proc. U. S. Nat. Mus., XI, 1888, 554, Elliott Bay at Seattle; Alaska.

Genus 1266. RATHBUNELLA Jordan and Evermann.

Rathbunella Jordan and Evermann, Check List, 1895, 463 (*Bathymaster hypoplectus* Gilbert).

3637. *Rathbunella hypoplecta* (Gilbert).

Coast of California about the Santa Barbara Islands.

Bathymaster hypoplectus Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 97, coast of California, south of Point Conception, at Albatross station 2944.

3638. *Rathbunella alleni* Gilbert.

Monterey Bay, Calif.

Rathbunella alleni Gilbert, Proc. Calif. Acad. Sci., 3d ser., III, 1904, 267, Monterey Bay, Calif.

Family 265. ZAPRORIDÆ**Genus 1267. ZAPRORA** Jordan.

Zaprora Jordan, Proc. Calif. Acad. Sci., 2d ser., VI, 1896, 202 (*Z. silenus* Jordan).

3639. *Zaprora silenus* Jordan.

East coast of Vancouver Island; only four specimens known.

Zaprora silenus Jordan, Proc. Calif. Acad. Sci., 2d ser., VI, 1896, 203, pl. 20, Nanaimo, Vancouver Island.

Family 266. CHIASMODONTIDÆ. Black swallows.**Genus 1268. CHIASMODON** Johnson.

Chiasmodon Johnson, Proc. Zool. Soc. Lond., 1863, 408 (*C. niger* Johnson).

Chiasmodon Gunther, altered spelling

3640. *Chiasmodon niger* Johnson. *Black swallow*.

Deep waters of the Atlantic; taken at Madeira and off Massachusetts coast.

Chiasmodon niger Johnson, Proc. Zool. Soc. Lond., 1863, 408, Madeira.

3641. *Chiasmodon subniger* Garman.

Pacific coast of Mexico, off Lower California, in deep water.

Chiasmodon subniger Garman, Mem., Mus. Comp. Zool., XXIV, 1899, 73, off Gulf of California at Albatross station 3429.

Genus 1269. PSEUDOSCOPELUS Lütken.

Pseudoscopus Lütken, Spolia Atlantica, Scopelini, 64, in Vid. Selsk. Skr. (6), VII, 1892, 285 (*P. scriptus* Lütken).

3642. *Pseudoscopus scriptus* Lütken.

Old Bahama Straits, in deep water.

Pseudoscopus scriptus Lütken, Spolia Atlantica, Scopelini, 64, in Vid. Selsk. Skr. (6), VII, 1892, 285, Old Bahama Straits.

Family 267. OPISTHOGNATHIDÆ. Jawfishes**Genus 1270. OPISTHOGNATHUS** Cuvier.

Opisthognathus Cuvier, Règne Anim., Ed. I, 1817, 252 (*O. sonnerati* Cuvier).

3643. *Opisthognathus macrognathus* Poey.

Florida Keys to Cuba.

Opisthognathus macrognathus Poey, Memorias, II, 1861, 284, Cuba.

Opisthognathus megastoma Gunther, Cat., I, 1860, 255, Gulf of Mexico.

Opisthognathus scaphiurus Goode and Bean, Proc. U. S. Nat. Mus., V, 1882, 417, Garden Key, Fla.

3644. *Opisthognathus lonchurum* Jordan and Gilbert.
Gulf of Mexico, in deep water; two specimens known, taken from the stomach of a red snapper at Pensacola, Fla.
Opisthognathus lonchurus Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 290, Snapper Banks off Pensacola, Fla.
3645. *Opisthognathus punctatum* Peters.
West coast of Mexico; Mazatlan; Magdalena Bay.
Opisthognathus punctatus Peters, Berl. Monatsber., 1869, 708, Mazatlan, Mexico.
3646. *Opisthognathus ommatum* Jenkins and Evermann
Bay of Guaymas, Gulf of California.
Opisthognathus ommata Jenkins and Evermann, Proc. U. S. Nat. Mus., XI, 1888, 153, Guaymas, Sonora.
- Genus 1271. GNATHYPOPS^{ss} Gill.
Gnathypops Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 241 (*Opisthognathus maxillosus* Poey).
3647. *Gnathypops maxillosa* (Poey).
Cuba, north to Garden Key, Fla.
Opisthognathus maxillosus Poey, Memorias, II, 1861, 286, Cuba.
3648. *Gnathypops macrops* (Poey).
Coast of Cuba.
Opisthognathus macrops Poey, Memorias, II, 1861, 287, coast of Cuba.
3649. *Gnathypops cuvieri* (Cuvier and Valenciennes).
Bahia.
Opisthognathus cuvieri Cuvier and Valenciennes, Hist. Nat. Poiss., XI, 1836, 504, Bahia (may be identical with *macrops*).
3650. *Gnathypops rhomalea* (Jordan and Gilbert).
Gulf of California.
Opisthognathus rhomaleus Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 276, Santa Maria Cove, Lower California.
3651. *Gnathypops scopis* Jenkins and Evermann.
Gulf of California at Guaymas.
Gnathypops scopis Jenkins and Evermann, Proc. U. S. Nat. Mus., XI, 1888, 152, Guaymas, Sonora, Mexico.
3652. *Gnathypops snyderi* Jordan and Evermann.
Gulf of California.
Gnathypops snyderi Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2285, San Luis Gonzales Bay, Gulf of California.
3653. *Gnathypops mystacina* Jordan.
Gulf of Mexico; known from the Pensacola "Snapper Banks," from the stomach of a red snapper (*Neomænis blackfordi*).
Gnathypops mystacinus Jordan, Proc. U. S. Nat. Mus., VII, 1884, 37, Snapper Banks off Pensacola, Fla.
3654. *Gnathypops aurifrons* Jordan and Thompson.
Garden Key, Fla.
Gnathypops aurifrons Jordan and Thompson, Bull. U. S. Bur. Fish., XXIV, 1904, 252, fig. 4, Garden Key, Fla.
- Genus 1272. LONCHOPISTHUS Gill.
Lonchopisthus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 241 (*Opisthognathus micrognathus* Poey).
3655. *Lonchopisthus micrognathus* (Poey).
Cuba.
Opisthognathus micrognathus Poey, Memorias, II, 1861, 287, Cuba.

^{ss} It is possible that some or all of the short-jawed forms are the females of species of *Opisthognathus*

Family 268. URANOSCOPIDÆ. Stargazers

Genus 1273. ASTROSCOPUS Brevoort. Stargazers.

Astroscope Brevoort, in Gill, Proc. Acad. Nat. Sci. Phila., XII, 1860, 20 (*Uranoscopus anoplos* Cuvier and Valenciennes = *Uranoscopus y-græcum* Cuvier and Valenciennes).

3656. *Astroscope y-græcum* (Cuvier and Valenciennes). Stargazer.
South Atlantic coast, from Cape Hatteras to the Caribbean Sea.
Uranoscopus y-græcum Cuvier and Valenciennes, Hist. Nat. Poiss., III, 1829, 229 (308), locality unknown.
Uranoscopus anoplos Cuvier and Valenciennes, loc. cit., VIII, 1831, 363 (493), Atlantic coast of North America.
3657. *Astroscope guttatus* Abbot. Spotted stargazer.
Atlantic coast of the United States, from Long Island to Virginia; not known south of Cape Hatteras.
Astroscope guttatus Abbott, Proc. Acad. Nat. Sci. Phila., XII, 1860, 365, pl. 7, Cape May, N. J.
3658. *Astroscope zephyreus* Gilbert and Starks.
Magdalena Bay, Lower California.
Astroscope zephyreus Jordan and Starks, Proc. U. S. Nat. Mus., XIX, 1896, 453, Magdalena Bay, Lower California.

Genus 1274. KATHETOSTOMA Günther.

Kathetostoma Günther, Cat., II, 1860, 231 (*Uranoscopus lævis* Bloch and Schneider).

3659. *Kathetostoma averruncus* Jordan and Bollman.
Pacific Ocean off coast of Colombia, and Bay of Panama, in deep water.
Kathetostoma averruncus Jordan and Bollman, Proc. U. S. Nat. Mus., XII, 1889, 163, off coast of Colombia, 8° 57' N, 79° 31' 30" W., at Albatross station 2800 in 7 fathoms.
3660. *Kathetostoma albigutta* (Bean).
Gulf of Mexico.
Kathetostoma albigutta Bean, Proc. U. S. Nat. Mus., XVIII, 1892, 121, Gulf of Mexico, at Albatross station 2403, 28° 42' 30" N., 85° 29' W.
- Genus 1275. EXECESTIDES Jordan and Thompson.
Excestides Jordan and Thompson, Bull. U. S. Bur. Fish., XXIV, 1904, 253, (*Excestides egregius* Jordan and Thompson).
3661. *Excestides egregius* Jordan and Thompson.
Garden Key, Fla.
Excestides egregius Jordan and Thompson, Bull. U. S. Bur. Fish., XXIV, 1904, 253, fig. 5, Garden Key, Fla.

Family 269. DACTYLOSCOPIDÆ. Sand stargazers

Genus 1276. DACTYLOSCOPUS Gill.

Dactyloscope Gill, Proc. Acad. Nat. Sci. Phila., XI, 1859, 132 (*D. tridigitatus* Gill).

Congrammus Fowler, loc. cit., LVIII, 1906, 105 (*C. moorei* Fowler).

3662. *Dactyloscope tridigitatus* Gill. Sand conger.
West Indies, north to Key West.
Dactyloscope tridigitatus Gill, Proc. Acad. Nat. Sci. Phila., XI, 1859, 132, Barbados.
Congrammus moorei Fowler, loc. cit., LVIII, 1906, 105, Hailer's Rock, Florida Keys.
3663. *Dactyloscope pectoralis* Gill.
Cape San Lucas, Lower California.
Dactyloscope pectoralis Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 267, Cape San Lucas, Lower California.
3664. *Dactyloscope cinetus* Osburn and Nichols.
Gulf of California.
Dactyloscope cinetus Osburn and Nichols, Bull. Amer. Mus. Nat. Hist., XXXV, 1916, 176, fig. 14, Cape San Lucas.

3665. *Dactyloscopus poeyi* Gill.

Cuba

Dactyloscopus poeyi Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 266, Cuba.**3666. *Dactyloscopus lunaticus* Gilbert.**

Gulf of California.

Dactyloscopus lunaticus Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 99, Gulf of California.**Genus 1277. GILLELLUS Gilbert.***Gillellus* Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 98 (*G. semicinctus* Gilbert).**3667. *Gillellus semicinctus* Gilbert.**

Gulf of California; also off the Florida coast.

Gillellus semicinctus Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 98, near north end of Gulf of California, at Albatross stations 2827, 24° 11' 45" N., 109° 55' W., and 2829, 22° 52' N., 109° 55' W., in 10 and 31 fathoms.**3668. *Gillellus arenicola* Gilbert.**

Cape San Lucas, Lower California.

Gillellus arenicola Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 99, Cape San Lucas**3669. *Gillellus ornatus* Gilbert.**

Gulf of California.

Gillellus ornatus Gilbert, Proc. U. S. Nat. Mus., XIV, 1891, 558, Gulf of California.**Genus 1278. ESLOSCOPUS Jordan and Evermann.***Esloscopus* Jordan and Evermann, Check List, 1895, 465 (*Dactyloscopus zelotes* Jordan and Gilbert).**3670. *Esloscopus zelotes* (Jordan and Gilbert).**

Panama.

Dactyloscopus zelotes Jordan and Gilbert, in Jordan and Evermann, Check List, 1895, 464, Panama.**Genus 1279. DACTYLAGNUS Gill.***Dactylagnus* Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 505 (*D. mundus* Gill).**3671. *Dactylagnus mundus* Gill.**

Carmen Island, Gulf of California.

Dactylagnus mundus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 505, Carmen Island, Gulf of California.**Genus 1280. MYXODAGNUS Gill.***Myxodagnus* Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 269 (*M. opercularis* Gill).**3672. *Myxodagnus opercularis* Gill.**

Cape San Lucas, Lower California.

Myxodagnus opercularis Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 270, Cape San Lucas, Lower California.**Family 270. CLINIDÆ****Genus 1281. MNIERPES Jordan and Evermann.***Mnierpes* Jordan and Evermann, Check List, 1895, 468 (*Clinus macrocephalus* Günther).**3673. *Mnierpes macrocephalus* (Günther).**

Pacific coast of Central America; Panama.

Clinus macrocephalus Günther, Cat., III, 1861, 266; Pacific coast of Central America.**Genus 1282. GOBIOCLINUS Gill.***Gobioclinus* Gill, Proc. Acad. Nat. Sci. Phila., XII, 1860, 103 (*Clinus gobio* Cuvier and Valenciennes).

3674. *Gobioclinus gobio* (Cuvier and Valenciennes).
Lesser Antilles.
Clinus gobio Cuvier and Valenciennes, Hist. Nat. Poiss., XI, 1836, 292 (395), Lesser Antilles.
- Genus 1283. **HISTIOCLINUS** Metzelaar.
Histioclinus Metzelaar, Trop. Atl. Vissch., 1919, 157 (*H. veliger* Metzelaar).
3675. *Histioclinus veliger* Metzelaar.
Caribbean Sea.
Histioclinus veliger Metzelaar, Trop. Atl. Vissch., 1919, 157, Bonaire.
- Genus 1284. **STARKSIA** Jordan and Evermann.
Starksia Jordan and Evermann, Proc. Calif. Acad. Sci., 2d ser., VI, 1896, 231, (*Labrosomus cremnobates* Gilbert).
3676. *Starksia cremnobates* (Gilbert).
Gulf of California.
Labrosomus cremnobates Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 100, Gulf of California.
- Genus 1285. **ALLOCLINUS** Hubbs.
Alloclinus Hubbs, Papers, Mich. Acad. Sci. Arts and Letters, VII, 1926 (1927), 351 (*Starksia holderi* Lauderbach).
3677. *Alloclinus holderi* (Lauderbach)
Santa Catalina, Calif.
Starksia holderi Lauderbach, Proc. U. S. Nat. Mus., XXXII, 1907, 74, fig. 6, Santa Catalina Island.
- Genus 1286. **CRYPTOTREMA** Gilbert.
Cryptotrema Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 101 (*C. corallinum* Gilbert).
3678. *Chryptotrema corallinum* Gilbert
Coast of California, south of Point Conception.
Cryptotrema corallinum Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 101, coast of California, south of Point Conception.
- Genus 1287. **EXERPES** Jordan and Evermann.
Ezerpes Jordan and Evermann, Proc. Calif. Acad. Sci., 2d ser., VI, 1896, 232 (*Auchenopterus asper* Jenkins and Evermann).
3679. *Ezerpes asper* (Jenkins and Evermann).
Guaymas, Mexico.
Auchenopterus asper Jenkins and Evermann, Proc. U. S. Nat. Mus., XI, 1888, 154, Guaymas, Mexico.
- Genus 1288. **CORALLICOLA** Jordan and Evermann.
Corallicola Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2369 (*Cremnobates marmoratus* Steindachner).
3680. *Corallicola marmoratum* (Steindachner). *Rockfish*.
Florida Keys to Cuba; Key West.
Cremnobates marmoratus Steindachner, Ichth. Beitr., V, 1876, 174, pl. 12, fig. 6, near Cuba.
3681. *Corallicola nigripinne* (Steindachner).
Barbados.
Clinus nigripinnis Steindachner, Ichth. Notizen, VI, 1867, 45, Barbados.
3682. *Corallicola altivelis* (Lockington).
La Paz, Lower California.
Cremnobates altivelis Lockington, Proc. Acad. Nat. Sci. Phila., XXXIII, 1881, 116, La Paz, Lower California.
- Genus 1289. **AUCHENOPTERUS** Günther.
Auchenopterus Günther, Cat., III, 1861, 275 (*A. monophthalmus* Günther; not *Auchenipterus* Cuvier and Valenciennes).
Cremnobates Günther, Proc. Zool. Soc. Lond., 1861, 374 (same type; substitute name).
Tekla Nichols, Copeia, No. 110, 1922, 69 (*Cremnobates fasciatus* Steindachner).

3683. *Auchenopterus monophthalmus* Gunther.
Gulf of California to Panama.
Auchenopterus monophthalmus Gunther, Cat., III, 1861, 275, Panama.
3684. *Auchenopterus integripinnis* (Rosa Smith).
Coast of California and southward to Todos Santos, Lower California.
Cremnobates integripinnis Rosa Smith, Proc. U. S. Nat. Mus., III, 1880, 147, La Jolla, near San Diego.
3685. *Auchenopterus mexicanus* Gilbert
La Paz to Mazatlan, Mexico.
Auchenopterus mexicanus Gilbert, Proc. Calif. Acad. Sci., 3d ser., III, 1904, 269, Pl. XXIX, La Paz, Lower California.
3686. *Auchenopterus affinis* (Steindachner).
West Indies; Key West; St. Thomas.
Cremnobates affinis Steindachner, Ichth. Beitr., V, 1876, 178, St. Thomas.
3687. *Auchenopterus fasciatus* (Steindachner)
Florida Straits; north to Key West; Porto Rico
Cremnobates fasciatus Steindachner, Ichth. Beitr., V, 1876, 176, Florida Straits.
3688. *Auchenopterus nox* (Jordan and Gilbert).
Key West, Fla.
Cremnobates nox Jordan and Gilbert, Proc. U. S. Nat. Mus., VII, 1884, 30, Key West.
3689. *Auchenopterus albicaudus* Evermann and Marsh.
Porto Rico.
Auchenopterus albicaudus Evermann and Marsh, Rept. U. S. Fish Com., XXV, 1899 (Dec. 19), 360, Arroyo, Porto Rico.
3690. *Auchenopterus fajardo* Evermann and Marsh.
Porto Rico.
Auchenopterus fajardo Evermann and Marsh, Rept. U. S. Fish Com., XXV, 1899 (Dec. 19), 361, Fajardo, Porto Rico.
3691. *Auchenopterus rubescens* Evermann and Marsh.
Porto Rico.
Auchenopterus rubescens Evermann and Marsh, Rept. U. S. Fish Com., XXV, 1899 (Dec. 19), 360, Puerto Real, Porto Rico.
3692. *Auchenopterus cingulatus* Evermann and Marsh.
Porto Rico.
Auchenopterus cingulatus Evermann and Marsh, Rept. U. S. Fish Com., XXV, 1899 (Dec. 19), 361, Ponce, Porto Rico,
3693. *Auchenopterus grandicomus* Rosen.
Bahamas.
Auchenopterus grandicomus Rosen, Fauna Bahamas, 1911, 69, Andros Island.
- Genus 1290. *AUCHENISTIUS* Evermann and Marsh.
Auchenistius Evermann and Marsh, Rept. U. S. Fish Com., XXV, 1899 (Dec. 19), 359 (*A. stahli* Evermann and Marsh).
3694. *Auchenistius stahli* Evermann and Marsh.
Porto Rico.
Auchenistius stahli Evermann and Marsh, Rept. U. S. Fish Com., XXV, 1899 (Dec. 19), 359, Ponce, Porto Rico.
- Genus 1291. *PARACLINUS* Mocquard.
Acanthoclinus Mocquard, Bull. Soc. Philom. Paris, X, 1885, 18 (*A. chaperi* Mocquard); name preoccupied.
Paraclinus Mocquard, loc. cit., I, 1888, 41 (*Acanthoclinus chaperi* Mocquard).
3695. *Paraclinus chaperi* (Mocquard).
Bay of Guanta, near Barcelona, in Venezuela.
Acanthoclinus chaperi Mocquard, Bull. Soc. Philom. Paris, X, 1885, 18, Bay of Guanta, Venezuela.

- Genus 1292. **ENNEAPTERYGIUS** Rüppell.
Enneapterygius Rüppell, Neue Wirbelthiere, Fische, 1835, 2 (*E. pusillus* Rüppell).
Enneanectes Jordan and Evermann, Proc. Calif. Acad. Sci., 2d ser., V, 1895, 501 (*Tripterygium carminale* Jordan and Gilbert).
3696. **Enneapterygius carminalis** (Jordan and Gilbert).
 Mazatlan, Mexico, and Caribbean Sea.
Tripterygium carminale Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 362, Mazatlan, Mexico.
- Genus 1293. **GILLIAS** Evermann and Marsh.
Gillias Evermann and Marsh, Rept. U. S. Fish Com., XXV, 1899 (Dec. 19), 357 (*G. jordani* Evermann and Marsh).
3697. **Gillias jordani** Evermann and Marsh.
 Porto Rico.
Gillias jordani Evermann and Marsh, Rept. U. S. Fish Com., XXV, 1899, (Dec. 19), 357, Cardona Lighthouse Reef, Ponce, Porto Rico.
- Genus 1294. **GIBBONSIA** Cooper.
Gibbonsia Cooper, Proc. Calif. Acad. Nat. Sci., III, 1863, 109 (*Myxodes elegans* Cooper).
Blakea Steindachner, Ichth. Beitr., V, 1876, 148 (*Myxodes elegans* Cooper).
3698. **Gibbonsia elegans** (Cooper). *Spotted kelpfish; Señorita*.
 Coast of southern California; Point Conception to Todos Santos.
Myxodes elegans Cooper, Proc. Calif. Acad. Nat. Sci., III, 1863, 109, San Diego; Santa Barbara.
Clinus ocellifer Mocquard, Bull. Soc. Philom. Paris, 1886, 44, California.
Clinus evdes Jordan and Gilbert, Synopsis, 1883, 763, Monterey, Calif.
3699. **Gibbonsia elegans montereyensis** Hubbs.
 Coast of southern California.
Gibbonsia elegans montereyensis Hubbs, Papers Mich. Acad. Sci. Arts and Letters, VII, 1926, 354, reef at Pacific Grove, Calif.
3700. **Gibbonsia metzi** Hubbs.
 California coast, chiefly in tidepools.
Gibbonsia metzi Hubbs, Papers Mich. Acad. Sci. Arts and Letters, VII, 1926, 360 Pacific Grove, Calif.
- Genus 1295. **HETEROSTICHUS** Girard.
Heterostichus Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 143 (*H. rostratus* Girard).
3701. **Heterostichus rostratus** Girard. *Kelpfish*.
 Coast of California from San Francisco to San Diego.
Heterostichus rostratus Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 143, San Diego, Calif.
- Genus 1296. **NEOCLINUS** Girard.
Neoclinus Girard, U. S. Pac. R. R. Surv., X, pt. 4, Fishes, 1858, 114 (*N. blanchardi* Girard).
3702. **Neoclinus blanchardi** Girard.
 Coast of California, Monterey to San Diego.
Neoclinus blanchardi Girard, U. S. Pac. R. R. Surv., X, pt. 4, Fishes, 1858, 114, off San Diego, Calif.
- Genus 1297. **PTEROGNATHUS** Jordan and Evermann.
Pterognathus Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 57 (*Neoclinus satiricus* Girard); name only suggested but not adopted.
Pterognathus Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2354 (*Neoclinus satiricus* Girard).
3703. **Pterognathus satiricus** (Girard).
 Coast of California, from Monterey to Santa Barbara.
Neoclinus satiricus Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 57, Monterey Bay.

- Genus 1298. LABRISOMUS Swainson.**
Labrisomus Swainson, Nat. Hist. Classn. Fishes, II, 1839, 277 (*Clinus pectinifer* Cuvier and Valenciennes = *Clinus nuchipinnis* Quoy and Gaimard).
Lepisoma DeKay, N. Y. Fauna: Fishes, 1842, 41, *L. cirrhosum* DeKay = *Clinus nuchipinnis* Quoy and Gaimard).
- 3704. *Labrisomus nuchipinnis* (Quoy and Gaimard).**
 West Indies; South Atlantic coast.
Clinus nuchipinnis Quoy and Gaimard, Voy. *Uranié*, Zool., 1824, 255, Bay of Rio de Janeiro.
Clinus pectinifer Cuvier and Valenciennes, Hist. Nat. Poiss., XI, 1836, 276 (374), Bahia.
Clinus capillatus Cuvier and Valenciennes, loc. cit., 278 (377), Martinique.
Clinus canariensis Valenciennes, in Webb and Berthelot, Poiss. Îles Canaries, 1839, 60, Pl. XVII, fig. 3, Canary Islands.
Lepisoma cirrhosum DeKay, N. Y. Fauna: Fishes, 41, 1842, Florida.
- 3705. *Labrisomus heilneri* Nichols.**
 Bahamas.
Labrisomus heilneri Nichols, Amer. Mus. Novitates, XXVI, 1921, p. 2, fig. 2, Bahamas.
- 3706. *Labrisomus xanti* Gill.**
 Pacific coast of Mexico.
Labrisomus xanti Gill, Proc. Acad. Nat. Sci. Phila., XII, 1860, 107, Cerro Blanco, Cape San Lucas.
- 3707. *Labrisomus herminier* (LeSueur).**
 St. Bartholomew, West Indies.
Blennius herminier LeSueur, Jour. Acad. Nat. Sci. Phila., IV, 1824, 361, St. Bartholomew, West Indies.
- 3708. *Labrisomus bucciferus* Poey.**
 Cuba.
Labrosomus bucciferus Poey, Synopsis, 1868, 399, Cuba.
- 3709. *Labrisomus lentiginosus* Bean.**
 Paget Parish, Bermudas.
Labrisomus lentiginosus Bean, Proc. Biol. Soc. Wash., XIX, 1906, 31, tide pool at Does Rock, Paget Parish, Bermudas.
- 3710-3711. *Labrisomus microlepidotus* Poey.**
 Cuba.
Labrosomus microlepidotus Poey, Anal. Soc. Española Hist. Nat., XIX, 1880, 246, Pl. VIII, fig. 2, Cuba.
- Genus 1299-1300. MALACOTENUS Gill.**
Malacotenus Gill, Proc. Acad. Nat. Sci. Phila., XII, 1860, 103 (*Clinus delalandi* Cuvier and Valenciennes).
- 3712. *Malacotenus delalandi* (Cuvier and Valenciennes).**
 Coast of Brazil and the Pacific coast of Mexico.
Clinus delalandii Cuvier and Valenciennes, Hist. Nat. Poiss., XI, 1836, 279 (378), Brazil.
Clinus zonifer Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 361, Mazatlan.
- 3713. *Malacotenus ocellatus* (Steindachner).**
 Bahama Islands.
Clinus ocellatus Steindachner, Ichth. Beitr., V, 1876, 182, Bahama Islands.
- 3714. *Malacotenus varius* (Poey).**
 Cuba.
Myxodes varius Poey, Enumeratio, 1876, 132, pl. 5, fig. 2, Habana.

3715. *Malacoctenus macropus* (Poey).
Cuba.
Myxodes macropus Poey, Synopsis, III, 1868, 399, Habana.
3716. *Malacoctenus lugubris* (Poey).
Cuba.
Myxodes lugubris Poey, Enumeratio, 1876, 131, Cuba.
3717. *Malacoctenus gilli* (Steindachner).
Barbados.
Clinus gilli Steindachner, Ichth. Notizen, VI, 1867, 46, Barbados.
3718. *Malacoctenus bimaculatus* (Steindachner).
Small rocky islands north coast of Cuba.
Clinus bimaculatus Steindachner, Ichth. Beitr., V, 1876, 180, islands off Cuba.
3719. *Malacoctenus puertoricensis* Evermann and Marsh
Porto Rico.
Malacoctenus puertoricensis Evermann and Marsh, Rept. U. S. Fish Com., XXV, 1899 (Dec. 19), 358, Hucare, Porto Rico.
3720. *Malacoctenus versicolor* (Poey).
Cuba.
Myxodes versicolor Poey, Enumeratio, 1876, 131, pl. 5, fig. 1, Cuba.
3721. *Malacoctenus biguttatus* (Cope).
New Providence, Bahamas.
Labrisomus biguttatus Cope, Trans. Amer. Phil. Soc. Phila., XIV, 1871, 473, New Providence, Bahamas.
- Genus 1301. *ERICTEIS* Jordan.
Ericteis Jordan, Bull. U. S. Fish Com., XXII, 1902, 543 (*E. kalisheræ* Jordan).
3722. *Ericteis kalisheræ* Jordan.
Bush Key, Tortugas.
Ericteis kalisheræ Jordan, Bull. U. S. Fish Com., XXII, 1902, 543, pl. 2, Bush Key, Fla.
- Genus 1302. *ACTEIS* Jordan.
Acteis Jordan, Bull. U. S. Fish Com., XXII, 1902, 543 (*Malacoctenus moorei* Evermann and Marsh).
3723. *Acteis moorei* (Evermann and Marsh).
Porto Rico.
Malacoctenus moorei Evermann and Marsh, Fishes of Porto Rico, in Bull. U. S. Fish Com., XX, 1900, 309, fig. 97, Culebra Island, Porto Rico.
3724. *Acteis culebræ* (Evermann and Marsh).
Porto Rico.
Malacoctenus culebræ Evermann and Marsh, Rept. U. S. Fish Com., XXV, 1899 (Dec. 19), 357, Culebra Island.

Family 271. *BLENNIIDÆ*

- Genus 1303. *BLENNIUS* Linnæus. *Blennies*.
Blennius Linnæus, Syst. Nat., ed. X, 1758, 256 (*B. galerita* Linnæus).
Salaria Forskål, Descr. Anim., 1777, 22 (*Blennius galerita* Linnæus).
Adonis Gronow, Cat. Fish., Ed. Gray, 1854, 93 (*A. pavoninus* Gronow = *Blennius ocellaris* Linnæus).
3725. *Blennius fabbri* Nichols.
Florida.
Blennius fabbri Nichols, Bull. Amer. Mus. Nat. Hist., XXVIII, 1910, 161, Miami, Fla.; perhaps young of *Chasmodes bosquianus*.
3726. *Blennius stearnsi* Jordan and Gilbert.
Gulf of Mexico.
Blennius stearnsi Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 300, Pensacola snapper banks.

- 3727. *Blennius fucorum* Cuvier and Valenciennes.** *Seaweed blenny.*
Off the Azores; also off New York.
Blennius fucorum Cuvier and Valenciennes, Hist. Nat. Poiss., XI, 1836, 194 (263), pl. 324, 240 miles south of the Azores.
Blennius oceanicus Cuvier and Valenciennes, loc. cit., 195 (265), open sea.
- 3728. *Blennius cristatus* Linnæus.** *Rockfish.*
Tropical Atlantic.
Blennius cristatus Linnæus, Syst. Nat., Ed. X, 1758, 256, Indies; after Gronow.
Blennius crinitus Cuvier and Valenciennes, Hist. Nat. Poiss., XI, 1836, 175 (237), La Rochelle, France.
Blennius nuchifilis Cuvier and Valenciennes, loc. cit., 186 (253), Isle of Ascension.
Blennius asterias Goode and Bean, Proc. U. S. Nat. Mus., V, 1882, 416, Garden Key, Fla.
- 3729. *Blennius favosus* Goode and Bean.**
Gulf of Mexico; Garden Key, Fla.
Blennius favosus Goode and Bean, Proc. U. S. Nat. Mus., V, 1882, 416, Garden Key, Fla.
- 3730. *Blennius pilicornis* Cuvier.**
Coast of Brazil and north to the West Indies; recorded from Rio Janeiro, Bahia, the Tortugas, and off the coast of Florida
Blennius pilicornis Cuvier, Règne Anim., ed. 2, II, 1829, 237, coasts of Europe, Rio Janeiro.
- 3731. *Blennius marmoreus* Poey.**
Cuba.
Blennius marmoreus Poey, Enumeratio, 1876, 130, Cuba.
- 3732. *Blennius truncatus* Poey.**
Cuba.
Blennius truncatus Poey, Memorias, II, 1861, 424, Cuba.
- 3733. *Blennius vinctus* Poey.**
Cuba.
Blennius vinctus Poey, Repertorio, II, 1867, 243, Habana.
- Genus 1304. LIPOPHRYS Gill.**
Pholis Fleming, Brit. Anim., 1828, 207 (*Blennius lævis*=*Blennius pholis* Linnæus); name preoccupied.
Lipophrys Gill, Amer. Nat., XXX, June, 1896, 498 (*Blennius pholis* Linnæus).
- 3734. *Lipophrys carolinus* (Cuvier and Valenciennes).**
South Carolina.
Pholis carolinus Cuvier and Valenciennes, Hist. Nat. Poiss., XI, 1836, 204 (276), Carolina.
- Genus 1305. SCARTELLA Jordan.**
Scartella Jordan, Proc. U. S. Nat. Mus., IX, 1886, 50 (*Blennius microstomus* Poey).
Blenniulus Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2386 (*Blennius brevipinnis* Günther).
- 3735. *Scartella microstoma* (Poey).**
Cuba.
Blennius microstomus Poey, Memorias, II, 1861, 288, Cuba.
- 3736. *Scartella brevipinnis* (Günther).**
Pacific coast of Mexico, from Mazatlan to Panama.
Blennius brevipinnis Günther, Cat., III, 1861, 226, Pacific coast of Central America.
- Genus 1306. HYPLEUROCHILUS Gill.**
Hypleurochilus Gill, Cat. Fishes E. Coast of N. Amer., Suppl. Proc. Acad. Nat. Sci. Phila., XIII, 1861, 44 (*Blennius multifilis* Girard=*Blennius geminatus* Wood).

- 3737. *Hypleurochilus geminatus* (Wood). Blenny.**
 South Atlantic and Gulf coasts of United States.
Blennius geminatus Wood, Jour. Acad. Nat. Sci. Phila., IV, 1824, 278,
 Charleston, S. C.
Blennius multifilis Girard, Proc. Acad. Nat. Sci. Phila., X, 1858, 169,
 St. Joseph's Island, Tex.
- Genus 1307. HYPSOBLENNIUS Gill.**
Hypsoblennius Gill, Cat. Fishes E. Coast N. Amer., Suppl. Proc. Acad.
 Nat. Sci. Phila., XIII, 1861, 44 (*Blennius hentz* LeSueur).
Isesthes Jordan and Gilbert, Synopsis, 1883, 757 (*Blennius gentilis*
 Girard).
- 3738. *Hypsoblennius hentz* (LeSueur).**
 Coasts of North and South Carolina, south of Indian River, Fla.;
 locally common.
Blennius hentz LeSueur, Jour. Acad. Nat. Sci. Phila., 1st ser., IV, 1825,
 363, Charleston, S. C.
Blennius punctatus Wood, loc. cit., 278, Charleston, S. C.; not of
 Fabricius, 1780.
- 3739. *Hypsoblennius gilberti* (Jordan).**
 California, from Point Conception southward to Todos Santos; Santa
 Barbara Islands, among rocks.
Isesthes gilberti Jordan, Proc. U. S. Nat. Mus., V, 1882, 349, Santa
 Barbara, Calif.
- 3740. *Hypsoblennius gentilis* (Girard).**
 Coast of California from Monterey to Cape San Lucas.
Blennius gentilis Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 149,
 Monterey, Calif.
- 3741. *Hypsoblennius piersoni* Gilbert and Starks.**
 Bay of Panama.
Hypsoblennius piersoni Gilbert and Starks, Mem. Calif. Acad. Sci., IV,
 1904, 191, Pl. XXXII, Bay of Panama.
- 3742. *Hypsoblennius striatus* (Steindachner).**
 Panama.
Blennius striatus Steindachner, Ichth. Beitr., V, 1876, 15, Panama.
- 3743. *Hypsoblennius ionthas* (Jordan and Gilbert).**
 Pensacola, Fla.
Isesthes ionthas Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882,
 299, Pensacola.
Isesthes scrutator Jordan and Gilbert, loc. cit., 300, Pensacola; Galveston.
- Genus 1308. CHASMODES Cuvier and Valenciennes.**
Chasmodes Cuvier and Valenciennes, Hist. Nat. Poiss., XI, 1836, 218
 (295) (*Blennius bosquianus* Lacépède).
Blenitrachus Swainson, Classn. Fish., II, 1839, 78, 274 (*Pholis quadri-*
faciatus Wood).
- 3744. *Chasmodes bosquianus* (Lacépède). Banded blenny; Bosc's shanny;**
Four-banded blenny.
 New York to Florida; common southward in shallow water.
Blennius bosquianus Lacépède, Hist. Nat. Poiss., II, 1800, 493, South
 Carolina; female.
- 3745. *Chasmodes quadrifasciatus* (Wood).**
 Probably south Atlantic coast of United States.
Pholis quadrifasciatus Wood, Jour. Acad. Nat. Sci. Phila., IV, 1824,
 282, locality unknown; probably South Carolina.
- 3746. *Chasmodes saburræ* Jordan and Gilbert.**
 Pensacola Bay, Fla.
Chasmodes saburræ Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882,
 298, Pensacola, Fla.
- 3747. *Chasmodes novemlineatus* (Wood). Nine-lined shanny.**
 South Atlantic coast of the United States, South Carolina to Florida.
Pholis novemlineatus Wood, Jour. Acad. Nat. Sci. Phila., IV, 1825, 280,
 Charleston Harbor, S. C.

- 3748. *Chasmodes jenkinsi* Jordan and Evermann.**
Guaymas, Sonora, Mexico.
Chasmodes jenkinsi Jordan and Evermann, Proc. Calif. Acad. Sci., 2d ser., VI, 1896, 232, pl. 39, Guaymas, Mexico.
- Genus 1309. HOMESTHES Gilbert.**
Homesthes Gilbert, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2394 (*H. caulopus* Gilbert).
- 3749. *Homesthes caulopus* Gilbert**
Panama Bay.
Homesthes caulopus Gilbert, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2394, Panama.
- Genus 1310. SCARTICHTHYS Jordan and Evermann.**
Scartes Jordan and Evermann, Check List, 1895, 471 (*Salaris salarias rubropunctatus* Cuvier and Valenciennes); name preoccupied.
Scartichthys Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2395 (*Salaris rubro-punctatus* Cuvier and Valenciennes).
- 3750. *Scartichthys rubropunctatus* (Cuvier and Valenciennes).**
Coast of Peru and Chile, north to Panama.
Salaris rubro-punctatus Cuvier and Valenciennes, Hist. Nat. Poiss., XI, 1836, 257 (348), Juan Fernandez, off Chile.
- Genus 1311. RUPISCARTES Swainson.**
Alicus Commerson, in Lacépède, Hist. Nat. Poiss., II, 1800, 458 (*A. saltatorius* Commerson); not binomial and not accepted by Lacépède.
Alicus Cuvier and Valenciennes, Hist. Nat. Poiss., XI, 1836, 337; casual notice; the name not accepted as that of a genus (*Blennius saliens*⁸⁹ = *Salaris alicus* Cuvier and Valenciennes).
Rupiscartes Swainson, Class. Fish., II, 1839, 275 (*Salaris atlanticus* Cuvier and Valenciennes).
- 3751. *Rupiscartes atlanticus* (Cuvier and Valenciennes).**
Tropical America on both coasts, north to West Indies and to Todos Santos, Lower California; abundant.
Salaris atlanticus Cuvier and Valenciennes, Hist. Nat. Poiss., XI, 1836, 238 (321), Atlantic Ocean.
- Genus 1312. ENTOMACRODUS Gill.**
Entomacrodus Gill, Proc. Acad. Nat. Sci. Phila., XI, 1859, 168 (*E. nigricans* Gill).
- 3752. *Entomacrodus chiostrictus* (Jordan and Gilbert).**
Pacific coast of Mexico.
Salaris chiostrictus Jordan and Gilbert, Synopsis, 1883, 363, Mazatlan, Mexico.
- 3753. *Entomacrodus margaritaceus* (Poey).**
Cuba.
Salaris margaritaceus Poey, Memorias, II, 1861, 289, Cuba.
- 3754. *Entomacrodus decoratus* Poey.**
Cuba.
Entomacrodus decoratus Poey, Synopsis, 1868, 398, Cuba.
- 3755. *Entomacrodus nigricans* Gill.**
West Indies.
Entomacrodus nigricans Gill, Proc. Acad. Nat. Sci. Phila., XI, 1859, 168, Barbados.
- 3756. *Entomacrodus cruentatus* Garman.**
Off Cocos Island in deep water.
Entomacrodus cruentatus Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 123, Pl. L; off Cocos Island, Panama.
- Genus 1313. SALARICHTHYS Guichenot.**
Salarichthys Guichenot, Mém., Soc. Sci. Nat. Cherbourg, XIII, 1868, 96 (*Salaris vomerinus* Cuvier and Valenciennes = *Salaris textilis* Cuvier and Valenciennes).

⁸⁹ "Un petit *salaris* qui nous paraît être celui, la même pour lequel Commerson a établi son genre *Alicus*."

- 3757. *Salarichthys textilis*** Quoy and Gaimard.
West Indies, from Bermudas to Brazil.
Salaris textilis Quoy and Gaimard, in Cuvier and Valenciennes, Hist. Nat. Poiss., XI, 1836, 227 (307), Ascension Island.
Salaris vomerinus Cuvier and Valenciennes, loc. cit., 258 (349), Bahia.
- Genus 1314. BRANNERELLA** Gilbert.
Brannerella Gilbert, Proc. Wash. Acad. Sci., II, 1900, 180 (*B. brasiliensis* Gilbert).
- 3758. *Brannerella brasiliensis*** Gilbert
Brazil, north to Curaçao, in the Caribbean Sea.
Brannerella brasiliensis Gilbert, Proc. Wash. Acad. Sci., II, 1900, 180, Maceio, Brazil.
- 3759. *Brannerella sluiteri*** Metzelaar.
Caribbean Sea.
Brannerella sluiteri Metzelaar, Trop. Atl. Vissch., 1919, 155, Bonaire.
- Genus 1315. OPHIOBLENNIUS** Gill.
Blennophis Valenciennes, in Webb and Barthelot, Îles Canaries, Poiss., 1844, 60 (*B. webbi* Valenciennes), name preoccupied.
Ophioblennius Gill, Proc. Acad. Nat. Sci. Phila., XII, 1860, 103 (*B. webbi* Valenciennes); substitute for *Blennophis* Valenciennes, not *Blennophis* Swainson, a genus of *Clinidæ*.
- 3760. *Ophioblennius webbi*** (Valenciennes).
West Indies and Canary Islands.
Blennophis webbi Valenciennes, in Webb and Barthelot, Îles Canaries, Poiss., 1839, 60, pl. 20, fig. 1, Fort Aventura, Canary Islands.
- 3761. *Ophioblennius steindachneri*** Jordan and Evermann.
Pacific coast of Mexico.
Ophioblennius steindachneri Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2401, Tres Marias Islands; after Steindachner.
- Genus 1316. CORALLIOZETUS** Evermann and Marsh.
Coralliozetus Evermann and Marsh, Rept. U. S. Fish Com., XXV, 1899 (Dec. 19), 362 (*C. cardonæ* Evermann and Marsh).
- 3762. *Coralliozetus cardonæ*** Evermann and Marsh.
Porto Rico.
Coralliozetus cardonæ Evermann and Marsh, Rept. U. S. Fish Com., XXV, 1899 (Dec. 19), 362, reef at Cardona Light House, Playa de Ponce, Porto Rico.

Family 272. EMBLEMARIIDÆ

- Genus 1317. EMBLEMARIA** Jordan and Gilbert.
Emblemaria Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 627 (*E. nivipes* Jordan and Gilbert).
- 3763. *Emblemaria atlantica*** Jordan and Evermann.
Snapper Banks off Pensacola; Gulf of Mexico.
Emblemaria atlantica Jordan and Evermann, Fishes North and Mid. Amer., 1908, 2402, snapper banks off Pensacola, Fla.
- 3764. *Emblemaria nivipes*** Jordan and Gilbert.
Pearl Island near Panama.
Emblemaria nivipes Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 627, Pearl Island, near Panama.
- 3765. *Emblemaria oculocirris*** Jordan.
Gulf of California.
Emblemaria oculocirris Jordan, in Gilbert, Proc. U. S. Nat. Mus., XIX, 1896, 456, La Paz.
- 3766. *Emblemaria pandionis*** Evermann and Marsh.
Porto Rico.
Emblemaria pandionis Evermann and Marsh, Bull. U. S. Fish Com., XX, 1900, 318, between Vieques and Culebra Islands.

3767. Emblemaria marki Mowbray.

Bermudas.

Emblemaria marki Mowbray, in Bean, Proc. Biol. Soc. Wash., XX V, 1912, 126, Hamilton Harbor, Bermudas.**Genus 1318. ACANTHEMBLEMARIA** Metzelaar.*Acanthemblemaria* Metzelaar, Trop. Atl. Vissch., 1919, 159 (*A. spinosa* Metzelaar).**3768. Acanthemblemaria spinosa** Metzelaar.

Caribbean Sea.

Acanthemblemaria spinosa Metzelaar, Trop. Atl. Vissch., 1919, 159, fig. 53, Curaçao.**Family 273. ATOPOCLINIDÆ****Genus 1319. ATOPOCLINIS** Vaillant.*Atopoclinus* Vaillant, Bull. Soc. Philom. Paris, ser. 8, VI, 1894, 73 (*A. ringens* Vaillant).**3769. Atopoclinus ringens** Vaillant.

Gulf of California.

Atopoclinus ringens Vaillant, Bull. Soc. Philom., ser. 8, VI, 1894, 74, Gulf of California.**Family 274. CHÆNOPSIDÆ****Genus 1320. CHÆNOPSIS** Gill.*Chænopsis* Gill, Ann. Lyc. Nat. Hist. N. Y., VIII, 1863, 141, Pl. 3, fig. 3 (*C. ocellatus* Poey).*Lucioblennius* Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 103 (*L. alepidotus* Gilbert).**3770. Chænopsis ocellata** Poey.

Matanzas, Cuba.

Chænopsis ocellatus Poey, in Gill, Ann. Lyc. Nat. Hist. N. Y., VIII, 1863, 143, Matanzas, Cuba.**3771. Chænopsis alepidota** (Gilbert).

Gulf of California; Avalon Bay, Calif.

Lucioblennius alepidotus Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 103, Lower California.**3772. Chænopsis lucius** (Osburn and Nichols).

Gulf of California.

Lucioblennius lucius Osburn and Nichols, Bull. Amer. Mus. Nat. Hist., XXXV, 1916, 179, fig. 15, San Jose Island, Gulf of California.**Genus 1321. PHOLIDICHTHYS** Bleeker.*Pholidichthys* Bleeker, Boeræ, in Natur. Tijds. Neder. Indie, XI, 1856, 406 (*P. leucotænia* Bleeker).**3773. Pholidichthys anguilliformis** Lockington.

Gulf of California.

Pholidichthys anguilliformis Lockington, Proc. Acad. Nat. Sci. Phila., XXXIII, 1881, 118, San Jose Island, Lower California.**Genus 1322. PSEDNOBLENNIUS** Jenkins and Evermann.*Pseudoblennius* Jenkins and Evermann, Proc. U. S. Nat. Mus., XI, 1888, 156 (*P. hypacanthus* Jenkins and Evermann).**3774. Pseudoblennius hypacanthus** Jenkins and Evermann.

Gulf of California at Guaymas, Sonora, Mexico.

Pseudoblennius hypacanthus Jenkins and Evermann, Proc. U. S. Nat. Mus., XI, 1888, 156, Guaymas, Mexico.**Genus 1323. STATHMONOTUS** Bean.*Stathmonotus* Bean, Proc. U. S. Nat. Mus., VIII, 1885, 191 (*S. hemphillii* Bean).**3775. Stathmonotus hemphillii** Bean.

Key West, Fla.

Stathmonotus hemphillii Bean, Proc. U. S. Nat. Mus., VIII, 1885, 191, pl. 13, Key West, Fla.

3776. *Stathmonotus tekla* Nichols.

Key West, Fla.

Stathmonotus tekla Nichols, Bull. Amer. Mus. Nat. Hist., XXVIII, 1910, 161, fig. 1c. XXX, Pl. XI, fig. 2, Key West, Fla.**Family 275. CEBIDICHTHYIDÆ****Genus 1324. CEBIDICHTHYS Ayres.***Cebidichthys* Ayres, Proc. Calif. Acad. Nat. Sci., I, 1855, 59 (*Apodichthys violaceus* Girard).**3777. *Cebidichthys violaceus* (Girard).**

Coast of California from Crescent City to Carpenteria.

Apodichthys violaceus Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 150, Monterey, Calif.*Cebidichthys cristagalli* Ayres, Proc. Calif. Acad. Nat. Sci., I, 1855, 58, San Francisco.**Family 276. CHIROLOPHIDÆ****Genus 1325. BRYOSTEMMA Jordan and Starks.***Bryostemma* Jordan and Starks, Proc. Calif. Acad. Sci. 2d ser, V, 1895, 841 (*Blennius polyactocephalus* Pallas).**3778. *Bryostemma polyactocephalum* (Pallas).**

Northern Japan and Kamchatka to Puget Sound.

Blennius polyactocephalus Pallas, Zool. Rosso-Asiat, III, 1811, 179, Kamchatka.*Charolophus japonicus* Herzenstein, Mélanges Biologiques Soc. Sci. Petersb., XIII, 1890, 123, Yezo, Japan.**3779. *Bryostemma nugator* Jordan and Williams.**

Puget Sound.

Bryostemma nugator Jordan and Williams, Proc. Calif. Acad. Sci., 2d ser., V, 1895, 843, pl. 101, Seattle, Wash.**3780. *Bryostemma decoratum* Jordan and Snyder.**

Point Orchard, Wash.

Bryostemma decoratum Jordan and Snyder, Proc. U. S. Nat. Mus., XXV, 1903, 615, Point Orchard, near Seattle, Wash.**3781. *Bryostemma tarsodes* Jordan and Snyder.**

Unalaska.

Bryostemma tarsodes Jordan and Snyder, Proc. U. S. Nat. Mus., XXV, 1903, 614, Unalaska.**Genus 1326. BRYOLOPHUS Jordan and Snyder.***Bryolophus* Jordan and Snyder, Proc. U. S. Nat. Mus., XXV, 1903, 617 (*B. lysimus* Jordan and Snyder).**3782. *Bryolophus lysimus* Jordan and Snyder.**

Unalaska.

Bryolophus lysimus Jordan and Snyder, Proc. U. S. Nat. Mus., XXV, 1903, 617, Unalaska.**Genus 1327. GYMNOCLINUS Gilbert and Burke.***Gymnoclinus* Gilbert and Burke, Bull. U. S. Bur. Fish., XXX, 1910, 86 (*G. cristulatus* Gilbert and Burke).**3783. *Gymnoclinus cristulatus* Gilbert and Burke.**

Bering Island.

Gymnoclinus cristulatus Gilbert and Burke, Bull. U. S. Bur. Fish., XXX, 1910, 86, fig. 30, Nikolski, Bering Island.**Family 277. PHOLIDÆ****Genus 1328. APODICHTHYS Girard.***Apodichthys* Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 150 (*A. flavidus* Girard).

3784. *Apodichthys flavidus* Girard.
Point Conception to Vancouver Island.
Apodichthys flavidus Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 150, Presidio (San Francisco), Calif.
Apodichthys vrescens Ayres, Proc. Calif. Acad. Nat. Sci., I, 1855, 55 (54), San Francisco.
Apodichthys sanguineus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 279, California.
Apodichthys inornatus Gill, loc. cit., 279, Puget Sound.
3785. *Apodichthys univittatus* Lockington.
Lower California.
Apodichthys univittatus Lockington, Proc. Acad. Nat. Sci. Phila., XXXIII, 1881, 119, Lower California, probably from the Gulf.
- Genus 1329. *XERERPES* Jordan and Gilbert.
Xerperes Jordan and Gilbert, Proc. Calif. Acad. Sci., 2d ser., V, 1895, 846 (*Apodichthys fucorum* Jordan and Gilbert).
3786. *Xerperes fucorum* (Jordan and Gilbert).
Coast of California.
Apodichthys fucorum Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 139, Point Pinos, near Monterey, Calif.
- Genus 1330. *ULVICOLA* Gilbert and Starks.
Ulvicola Gilbert and Starks, Proc. U. S. Nat. Mus., XIX, 1896, 455 (*U. sanctæ-rosæ* Gilbert and Starks).
3787. *Ulvicola sanctæ-rosæ* Gilbert and Starks.
Santa Rosa Island, coast of California.
Ulvicola sanctæ-rosæ Gilbert and Starks, Proc. U. S. Nat. Mus., XIX, 1896, 453, Santa Rosa Island, Calif.
- Genus 1331. *PHOLIS* Gronow.
Pholis Gronow, Acta Helvet., IV, 1760, 259 (*Blennius gunnellus* Linnæus).
Pholis Scopoli, Introd. Hist. Nat., 1777, 456 (*Blennius gunnellus* Linnæus).
Murænoides Lacépède, Hist. Nat. Poiss., II, 1800, 324 (*Murænoides sujef* Lacépède).
Centronotus Schneider, Systema, ed. Bloch, 1801, 165 (*Centronotus fasciatus* Schneider).
Dactyleptus Rafinesque, Anal. Nat., 1815, 82; substitute for *Murænoides*.
Gunnellus Fleming, Brit. Anim., 1828, 207 (*G. vulgaris* Fleming = *Blennius gunnellus* Linnæus).
Centronotus Cuvier, Règne Anim., ed. 2, II, 1829, 239 (*Blennius gunnellus* Linnæus).
Ophiomus Swainson, Classn. Anim., II, 1839, 279 (*Blennius gunnellus* Linnæus).
Urocentrus Kner, Sitzber. K. Akad. Wiss. Wien, LVIII, 1868, 51 (*U. pictus* Kner).
3788. *Pholis gunnellus* (Linnæus). *Gunnel*; *Butterfish*; *Rockfish*.
North Atlantic, south to Cape Cod.
Blennius gunnellus Linnæus, Syst. Nat., Ed. X, 1758, 257, Atlantic Ocean.
Ophidion imberbe Linnæus, loc. cit., 259, Europe.
Blennius europæus Olafsen, Reise Island, I, 1772, 81, Iceland.
Blennius murænoides Sujef, Act. Petrop., II, 1779, 195, no locality, probably Baltic.
Ophidium mucronatum Mitchill, Trans. Lit. and Phil. Soc. N. Y., I, 1815, 361, Pl. I, fig. 1, New York.
Gunnellus vulgaris Fleming, British Anim., 1842, 207, England.

3789. *Pholis fasciatus* (Bloch and Schneider).
Greenland to Alaska and Japan.
Centronotus fasciatus Bloch and Schneider, Syst. Ichth., 1801, 165, pl. 37, fig. 1, Tranquebar.
Gunnellus greenlandicus Cuvier and Valenciennes, Hist. Nat. Poiss., XI, 1836, 326 (442), pl. 340, Greenland; after Bloch and Schneider.
? *Gunnellus murzenoides* Valenciennes, in Cuvier, Règne Anim., Poiss., ed. 2, 1829, pl. 78, fig. 2, 916; after Bloch and Schneider.
Blennius tænia Pallas, Zoogr. Rosso-Asiat., III, 1811, 178, Kuril Islands.
Murzenoides maxillaris Bean, Proc. U. S. Nat. Mus., IV, 1881, 147, St. Paul Island, Alaska.
3790. *Pholis ornatus* (Girard).
San Francisco to Alaska.
Gunnellus ornatus Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 149, Presidio (San Francisco), Calif.
Centronotus lætus Cope, Proc. Amer. Phil. Soc., XIII, 1873, 27, Sitka or Unalaska.
3791. *Pholis gilli* Evermann and Goldsborough.
Bering Sea.
Pholis gilli Evermann and Goldsborough, Bull. U. S. Bur. Fish., XXVI, 1906, 337, fig. 110, Bering Sea.
- Genus 1332. RHODYMENICHTHYS Jordan and Evermann.
Rhodymenichthys Jordan and Evermann, Check List, 1895, 474 (*Gunnellus ruberrimus* Cuvier and Valenciennes = *Blennius dolichogaster* Pallas).
3792. *Rhodymenichthys dolichogaster* (Pallas). *Butterfish*.
Okhotsk Sea to San Francisco
Blennius dolichogaster Pallas, Zoogr. Rosso-Asiat., III, 1811, 175, Kamchatka.
Gunnellus ruberrimus Cuvier and Valenciennes, Hist. Nat. Poiss., XI, 1836, 324 (440), Kuril Islands; after Pallas.
- Genus 1333. ASTERNOPTERYX Ruppell.
Asternopteryx Ruppell, in Günther, Cat., III, 1861, 288 (*A. gunelliformis* Ruppell).
3793. *Asternopteryx gunelliformis* Ruppell.
Greenland.
Asternopteryx gunelliformis Ruppell, in Günther, Cat., III, 1861, 288, Greenland; type in Senckenberg Museum, Frankfurt; a second specimen from Greenland examined by us.
- Genus 1334. ANOPLARCHUS Gill.
Anoplarchus Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 261 (*A. purpurescens* Gill).
3794. *Anoplarchus cristagalli* (Günther).
Alaska to San Francisco.
Centronotus cristagalli Günther, Cat., III, July, 1861, 289, Vancouver Island.
Anoplarchus purpurescens Gill, Proc. Acad. Nat. Sci. Phila., XIII, Sept., 1861, 262, Washington Territory.
3795. *Anoplarchus cristigalli archolepis* Hubbs.
Coast of central California.
Anoplarchus purpurescens archolepis Hubbs, Papers Mich. Acad. Sci., Arts and Letters, VII, 1926, 375, Reef at Carmel, Calif.
3796. *Anoplarchus insignis* Gilbert and Burke.
Attu Island.
Anoplarchus insignis Gilbert and Burke, Bull. U. S. Bur. Fish., XXX, 1910, 88, fig. 32, Attu Island, Bering Sea.
- Genus 1335. PLECTOBRANCHUS Gilbert.
Plectobranchnus Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 102 (*P. evides* Gilbert).

- 3797. *Plectobranthus evides* Gilbert.**
Coasts of Oregon and Washington.
Plectobranthus evides Gilbert, Proc. U. S. Nat. Mus., XIII, 1898, 102,
coasts of Oregon and Washington.

Family 278. XIPHISTERIDÆ

Genus 1336. XIPHISTER Jordan and Gilbert.

- Xiphidion* Girard, Pac. R. R. Surv., X, Pt. 4, Fishes, 1858, 119 (*X mucosum* Girard); name preoccupied in *Orthoptera*.
Xiphister Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 135
(*Xiphidion mucosum* Girard).

3798. *Xiphister mucosus* (Girard).

- Monterey to Alaska.
Xiphidion mucosum Girard, Pac. R. R. Surv., X, pt. 4, Fishes, 1858,
119, South Farallon Island, off California.
Xiphidium cruoreum Cope, Proc. Amer. Phil. Soc., XIII, 1873, 27,
Sitka, Alaska.

Genus 1337. EPIGEICHTHYS Hubbs.

- Epigeichthys* Hubbs, Papers Mich. Acad. Sci. Arts and Letters, VII,
1926 (*Xiphister rupestris* Jordan and Gilbert).

3799. *Epigeichthys atropurpureus* (Kittlitz).

- Pacific coast of America from Alaska to Monterey.
Ophidium atropurpureum Kittlitz, Denkwurd, einer Reise Russ.-Amer.,
I, 1858, 225, Alaska.
Xiphister rupestris Jordan and Gilbert, Proc. U. S. Nat. Mus., III,
1880, 137, Monterey, Calif.

Genus 1338. PHYTICHTHYS Hubbs.

- Xiphistes* Jordan and Starks, Proc. Calif. Acad. Sci., 2d ser., V, 1895,
846 (*Xiphistes chirus* Jordan and Gilbert); name preoccupied in
insects.
Phytichthys Hubbs, in Jordan, Class. Fishes, 1923, 234 (*Xiphister chirus*
Jordan and Gilbert).

3800. *Phytichthys chirus* (Jordan and Gilbert).

- Monterey to Alaska.
Xiphister chirus Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880,
135, Point Pinos, near Monterey, Calif.
Xiphistes ulvæ Jordan and Starks, Fishes Puget Sound, Proc. Calif.
Acad. Sci., 2d ser., V, 1895, 847, pl. 102, Waadda Island, Neah Bay.

3801. *Phytichthys versicolor* (Gilbert and Burke).

- Bering Sea.
Xiphistes versicolor Gilbert and Burke, Bull. U. S. Bur. Fish., XXX,
1910, 88, fig. 33; Attu; Agattu, Bering Sea.

Family 279. STICHÆIDÆ

Genus 1339. STICHÆUS Reinhardt.

- Stichæus* Reinhardt, K. Dansk. Vidensk. Selsk. Skrift Natur. og
Math. Afhandl., VI, 1837, CX (*Blennius punctatus* Fabricius).
Notogrammus Bean, Proc. U. S. Nat. Mus., IV, 1881, 147 (*N. rothrocki*
Bean); young example.

3802. *Stichæus punctatus* (Fabricius). Spotted snake blenny.

- Arctic seas from Greenland to northern Siberia, south to Bristol Bay
and Newfoundland.
Blennius punctatus Fabricius, Fauna Groenlandica, 1780, 153, Greenland.
Notogrammus rothrocki Bean, Proc. U. S. Nat. Mus., IV, 1881, 146,
Plover Bay and Cape Lisburne, Siberia.

Genus 1340. PLAGIOGRAMMUS Bean.

- Plagiogrammus* Bean, Proc. U. S. Nat. Mus., XVI, 1893, 699 (*P.*
hopkinsi Bean).

3803. *Plagiogrammus hopkinsi* Bean.

- Monterey Bay, Calif.
Plagiogrammus hopkinsi Bean, Proc. U. S. Nat. Mus., XVI, 1893, 700,
with fig. on p. 699; Monterey, Calif.

Genus 1341. ULVARIA Jordan and Evermann.

Ulvaria Jordan and Evermann, Check List, 1895, 475 (*Pholis subbifurcatus* Storer).

3804. *Ulvaria subbifurcata* (Storer). *Radiated shanny*.

North Atlantic, south of Cape Cod.

Pholis subbifurcatus Storer, Rept. Fish. Mass., 1839, 63, Nahant, Mass.

Genus 1342. EUMESOGRAMMUS Gill.

Eumesogrammus Gill, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 210 (*Clinus præcisus* Krøyer).

3805. *Eumesogrammus præcisus* (Krøyer).

Greenland.

?*Clinus præcisus* Krøyer, Naturh. Tidsskr., I, 1837, 25, Greenland.

Clinus unimaculatus Reinhardt, Dansk. Vidensk. Selsk., VII, 1838, 114, 121, Greenland.

Family 280. LUMPENIDÆ**Genus 1343. LEPTOCLINUS** Gill.

Ctenodon Nilsson, Scand. Fauna, IV, 1853, 190 (*Clinus maculatus* Fries); name preoccupied.

Leptoclinus Gill, Cat. Fish. E. coast N. Amer., Suppl. Proc. Acad. Nat. Sci. Phila., XIII, 1861, 45 (*Clinus aculeatus* Reinhardt=*Clinus maculatus* Fries).

3806. *Leptoclinus maculatus* (Fries). *Langbarn*.

North Atlantic coasts of Europe; this or some closely similar species is recorded from Bering Sea, Robben Island, Aleutian Islands, and Hood Canal, Puget Sound.

Clinus maculatus Fries, Kgl. Vet. Ak. Handl., 1837, 51, Bohuslaan, Sweden.

Clinus aculeatus Reinhardt, K. Dansk. Vid. Selsk. Natur. Afh., VII, 1838, 114, 122, Spitzbergen.

Genus 1344. POROCLINUS Bean.

Poroclinus Bean, Proc. U. S. Nat. Mus., XIII, 1890, 40 (*P. rothrocki* Bean).

3807. *Poroclinus rothrocki* Bean.

Between Nagai and Big Koniushi Islands, Alaska.

Poroclinus rothrocki Bean, Proc. U. S. Nat. Mus., XIII, 1890, 40, Albatross station 2952, lat. 55° 15' N., long. 159° 37' W., in 58 fathoms.

Genus 1345. ANISARCHUS Gill.

Anisarchus Gill, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 209 (*Clinus medius* Reinhardt).

3808. *Anisarchus medius* (Reinhardt).

Greenland to Norway and Spitzbergen; this or a similar species on coasts of southern and central Alaska.

Clinus medius Reinhardt, K. Dansk. Vidensk. Selsk. Skrift. Afh., VII, 1838, 114, 121, Greenland.

Genus 1346. LUMPENUS Reinhardt.

Lumpenus Reinhardt, Dansk. Vidensk. Selsk. Natur., VI, 1837, CX (*Blennius lumpenus* Fabricius=*Gunnellus fabricii* Cuvier and Valenciennes).

Leptogunnellus Ayres, Proc. Calif. Acad. Nat. Sci., I, 1854, 26 (*L. gracilis* Ayres=*Blennius anguillaris* Pallas).

Centroblennius Gill, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 209 (*Lumpenus nubilus* Richardson=*Gunnellus fabricii* Cuvier and Valenciennes).

Leptoblennius Gill, loc. cit., 1864, 209 (*Blennius serpentinus* Storer=*Blennius lampetæformis* Walbaum).

3809. *Lumpenus gracilis* (Ayres).

San Francisco to Alaska.

Blennius anguillaris Pallas, Zoogr. Rosso-Asiat., III, 1811, 176, about Kamchatka; no definite locality; not of Peck.

Leptogunnellus gracilis Ayres, Proc. Calif. Acad. Nat. Sci., I, 1855, 26, San Francisco.

3810. *Lumpenus mackayi* Gilbert.
Nushagak River, Alaska.
Lumpenus mackayi Gilbert, Rept. U. S. Fish Com., XIX, 1893, 450,
pl. 32, Nushagak River, Alaska.
3811. *Lumpenus fabricii* (Cuvier and Valenciennes).
Arctic seas; Greenland, Gulf of St. Lawrence, Wellington Sound,
Bristol Bay, and other localities in Bering Sea.
Gunellus fabricii Cuvier and Valenciennes, Hist. Nat. Poiss., XI, 1836,
317 (431), Greenland.
Lumpenus nubilus Richardson, Last Arctic Voyage, Fishes, 1855, 259,
pl. 28, Wellington Sound.
3812. *Lumpenus lampetræformis* (Walbaum). *Snake blenny; Tangbrosme;*
Eel blenny; Snakefish.
North Atlantic and Arctic, on both shores; south to Sweden and Green-
land; rarely to Cape Cod.
Blennius lampetræformis Walbaum, Artedi Pisc., III, 1792, 184, Iceland.
Centronotus islandicus Schneider, ed. Bloch, Syst. Ichth., 1801, 167,
Iceland.
? *Chnus nebulosus* Fries, Vet. Akad. Handl., 1837, 55, Bohuslän, Sweden.
? *Chnus mohr* Krøyer, Naturh. Tidsskr., I, 1837, R, 32, Iceland.
Blennius gracilis Stuvitz, Nye Mag. for Naturvid., I, 1838, 406, west
coast of Norway.
Blennius serpentinus Storer, Proc. Bost. Soc. Nat. Hist., III, 1848, 30,
Massachusetts Bay
- Genus 1347. **LUMPENELLA** Hubbs.
Lumpenella Hubbs, Papers Mich. Acad. Sci. Arts and Letters, VII,
1926, 378 (*Lumpenus longirostris* Evermann and Goldsborough).
3813. *Lumpenella longirostris* (Evermann and Goldsborough).
Southeastern Alaska.
Lumpenus longirostris Evermann and Goldsborough, Bull. U. S. Bur.
Fish., XXVI, 1906, 340, fig. 115, Lynn Canal, Alaska.

Family 281. PTILICHTHYIDÆ

- Genus 1348. **PTILICHTHYS** Bean.
Ptilichthys Bean, Proc. U. S. Nat. Mus., IV, 1881, 157 (*P. goodei* Bean).
3814. *Ptilichthys goodei* Bean.
Aleutian Islands.
Ptilichthys goodei Bean, Proc. U. S. Nat. Mus., IV, 1881, 157, Port
Levasheff, Unalaska.

Family 282. CRYPTACANTHODIDÆ

- Genus 1349. **CRYPTACANTHODES** Storer.
Cryptacanthodes Storer, Rept. Fish. Mass., 1839, 27 (*C. maculatus*
Storer).
3815. *Cryptacanthodes maculatus* Storer. *Wrymouth; Ghostfish*
North Atlantic, south to Cape Cod.
Cryptacanthodes maculatus Storer, Rept. Fish. Mass., 1839, 28, Massa-
chusetts.
Fierasfer borealis DeKay, New York Fauna Fishes, 1842, 316, New
York; after Peck.
Cryptacanthodes mornatus Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863,
332, coast of Massachusetts.
- Genus 1350. **LYCONECTES** Gilbert.
Lyconectes Gilbert, Rept. U. S. Fish Com., XIX, 1893, 452 (*L. aleutensis*
Gilbert).
3816. *Lyconectes aleutensis* Gilbert.
Aleutian Islands.
Lyconectes aleutensis Gilbert, Rept. U. S. Fish Com., XIX, 1893, 452,
pl. 34, near Unalaska.
- Genus 1351. **DELOLEPIS** Bean.
Delolepis Bean, Proc. U. S. Nat. Mus., IV, 1881, 465 (*D. virgatus* Bean).

3817. *Delolepis giganteus* Kittlitz
Coasts of British Columbia and southern Alaska, south to Puget Sound.
Delolepis giganteus Kittlitz, Denk. Reise Russ. Amer., 226, 1858, Siberia.
Delolepis virgatus Bean, Proc. U. S. Nat. Mus., IV, 1881, 466, Kingcombe Inlet, British Columbia, and Port Wrangel, Alaska.

Family 283. ANARHICHADIDÆ

Genus 1352. ANARHICHAS Linnæus.

Anarhichas Linnæus, Syst. Nat., Ed. X, 1758, 247 (*A. lupus* Linnæus).

3818. *Anarhichas lupus* Linnæus *Wolfish*
North Atlantic, south to Cape Cod and France: rather common in America and Europe.
Anarhichas lupus Linnæus, Syst. Nat., Ed. X, 1758, 247, no definite locality.
Anarhichas strigosus Gmelin, Syst. Nat., Tome I, Pt. III, 1789, 1144, British seas.
Anarhichas vomerinus Agassiz, in Storer, Hist. Fish. Mass., 1867, 265, pl. 18, fig. 1, Cusk Rocks between Boston and Cape Ann.
3819. *Anarhichas orientalis* Pallas.
Alaska.
Anarhichas orientalis Pallas, Zoogr. Rosso-Asiat., III, 1811, 77, Kamchatka.
Anarhichas lepturus Bean, Proc. U. S. Nat. Mus., II, 1879, 212, St. Michaels, Alaska.

Genus 1353. LYCICHTHYS Gill.

Lycichthys Gill, Ann. Rec. Indust. & Sci., 1876, CLXVII (*Anarrhichas latifrons* Steenstrup and Hallgrimsson).

3820. *Lycichthys latifrons* (Steenstrup and Hallgrimsson).
North Atlantic, on both coasts; chiefly north of the Arctic Circle.
Anarrhichas latifrons Steenstrup and Hallgrimsson, Forh. Skand. Naturf., 3 die Møte, 1842, 647; name only, no description; Viden-skabelige Meddeleker Natur Forening Kjobenhavn, 1877-1878, 109-114.
3821. *Lycichthys minor* (Olafsen).
North Atlantic, on both coasts, chiefly north of the Arctic Circle.
Anarrhichas minor Olafsen, Reise i. Island, sec. 682b, 1774, tab. 42, Iceland.
Anarrhichas karrak Bonnaterre, Encycl. Ichth., 1788, 38, Iceland, after Olafsen.
Anarrhichas maculatus Bloch and Schneider, Syst. Ichth., 1801, 496, Iceland; after Olafsen.
Anarrhichas leopardus Agassiz, in Spix, Pisc. Brasil., 1829, 92, tab. 51, "Atlantic Ocean."

Family 284. ANARRHICHTHYIDÆ

Genus 1354. ANARRHICHTHYS Ayres.

Anarrhichthys Ayres, Proc. Calif. Acad. Nat. Sci., I, 1855, 31 (*A. ocellatus* Ayres = *A. felis* Girard).

3822. *Anarrhichthys felis* (Girard). *Wolf eel*.
Pacific coast, from Monterey north to Puget Sound; common.
Anarrhichas felis Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 150, San Francisco; brief notice.
Anarrhichthys ocellatus Ayres, Proc. Calif. Acad. Nat. Sc., I, 1855, 31, San Francisco.

Family 285. CERDALIDÆ

Genus 1355. MICRODESMUS Günther.

Microdesmus Gunther, Proc. Zool. Soc. Lond., 1864, 26 (*M. dipus* Gunther).

3823. *Microdesmus dipus* Gunther.
Pacific coast of tropical America.
Microdesmus dipus Gunther, Proc. Zool. Soc. Lond., Jan. 26, 1864,
26, pl. 3, fig. 2, Central America.
3824. *Microdesmus retropinnis* Jordan and Gilbert.
Panama.
Microdesmus retropinnis Jordan and Gilbert, Bull. U. S. Fish Com., I,
1881, 331, Panama.
- Genus 1356. CERDALE Jordan and Gilbert.
Cerdale Jordan and Gilbert, Bull. U. S. Fish Com., I, 1881, 332 (*C.
ionthas* Jordan and Gilbert).
3825. *Cerdale ionthas* Jordan and Gilbert.
Panama.
Cerdale ionthas Jordan and Gilbert, Bull. U. S. Fish Com., I, 1881,
332, Panama.
- Genus 1357. LEPTOCERDALE Weymouth.
Leptocerdale Weymouth, Proc. U. S. Nat. Mus., XXXVIII, 1910,
142 (*L. longipinnis* Weymouth).
3826. *Leptocerdale longipinnis* Weymouth.
Coast of Louisiana.
Leptocerdale longipinnis Weymouth, Proc. U. S. Nat. Mus., XXXVIII,
1910, 142, Cameron, La.

Family 286. SCYTALINIDÆ

- Genus 1358. SCYTALINA Jordan and Gilbert.
Scytalina Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 266
(*S. cerdale* Jordan and Gilbert).
Scutaliscus Jordan and Gilbert, Proc. U. S. Nat. Mus., VI, 1883, III;
same type, there being already a genus *Scytalinus*.
3827. *Scytalina cerdale* Jordan and Gilbert.
Straits of Juan de Fuca, Waadda Island, near Cape Flattery; also in
Aleutian Islands burrowing deep in gravel and sand.
Scytalina cerdale Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880,
267, Waadda Island, Neah Bay.

Family 287. ZOARCIDÆ

- Genus 1359. MACROZOARCES Gill.
Macrozoarces Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 258 (*Blennius
anguillaris* Peck).
3828. *Macrozoarces americanus* (Bloch and Schneider). *Eelpout*; *Muttonfish*;
Mother-of-eels; *Ling*; *Lamper eel*; *Conger eel*.
Delaware to Labrador; rather common northward.
? *Enchelyopus* Gronow, Zoophyl., No. 266, 1763, 77, America.
? *Blennius americanus* Bloch and Schneider, Syst. Ichth., 1801, 171,
America; after Gronow.
Blennius anguillaris Peck, Mem. Amer. Acad. Sci., II, 1804, 46, fig. 3,
New Hampshire.
? *Blennius fimbriatus* Mitchill, Trans. Lit. and Phil. Soc. N. Y., 1815,
374, pl. 1, fig. 6, New York.
Blennius ciliatus Mitchill, loc. cit., 374, pl. 1, fig. 6, New York.
Zoarces labrosus Cuvier, Règne Anm., ed. 2, II, 1829, 240, America.
Zoarces gronovi Cuvier and Valenciennes, Hist. Nat. Poiss., XI, 1836,
246 (469); after Gronow.
- Genus 1360. EMBRYX Jordan and Evermann.
Embryx Jordan and Evermann, Fishes North and Mid. Amer., 1898,
2458 (*Lycodopsis crotalinus* Gilbert).
3829. *Embryx crotalinus* (Gilbert).
Northern Pacific and off Santa Barbara Islands.
Lycodopsis crotalinus Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 105,
off Santa Barbara Islands at Albatross station 2980 in 603 fathoms.

3830. *Embryx crassilabris* (Gilbert).
Coast of southern California.
Lycodopsis crassilabris Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 106,
off southern California at Albatross station 2839.
3831. *Embryx parallelus* Gilbert.
Monterey Bay.
Embryx parallelus Gilbert, Proc. U. S. Nat. Mus., XLVIII, 1915, 360,
Pl. X, IX, fig. 16, Monterey Bay, 394 to 406 fathoms.
- Genus 1361. *LYCOPSIS* Collett.
Lycopsis Collett, Proc. Zool. Soc. Lond., 1879, 381 (*Lycodes pacificus*
Collett).
Leurynnus Lockington, Proc. U. S. Nat. Mus., II, 1879, 326 (*L. paucidens*
Lockington = *Lycodes pacificus* Collett).
3832. *Lycodopsis pacificus* (Collett).
San Francisco to central Alaska; Afognak Bay.
Lycodes (Lycodopsis) pacificus Collett, Proc. Zool. Soc. Lond., 1879,
381; said to be from Japan; doubtless an error.
Leurynnus paucidens Lockington, Proc. U. S. Nat. Mus., II, 1879, 326,
off San Francisco, Calif.
3833. *Lycodopsis scaurus* Garman.
Off Bay of Panama in deep water.
Lycodopsis scaurus Garman, Mem. Mus. Comp. Zool., XXIV, 1899,
132, Pl. XXXII, off Bay of Panama.
- Genus 1362. *APRODON* Gilbert.
Aprodon Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 106 (*A. corteziana*
Gilbert).
3834. *Aprodon cortezianus* Gilbert.
Cortez Banks, near San Diego, Calif.
Aprodon corteziana Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 107,
Cortez Banks, off San Diego, at Albatross stations 2925 and 2948 in
339 and 266 fathoms.
- Genus 1363. *LYCODES* Reinhardt.
Lycodes Reinhardt, Königl. Danske. Vidensk. Selsk. Naturv. Math.
Afh., VII, 1838, 153 (*L. vahli* Reinhardt).
3835. *Lycodes vahli* Reinhardt. *Vahl's lycodes; Misarkornak*.
Coast of Greenland.
Lycodes vahli Reinhardt, Königl. Danske. Vidensk. Selsk. Nat. Math.
Afh., VII, 1838, 153, pl. 5, Greenland.
3836. *Lycodes frigidus* Collett.
North Atlantic, off New England coast; Spitzbergen.
Lycodes frigidus Collett, Forh. Vid. Selsk. Christ., 1878, Nos. 14, 45,
near Spitzbergen.
3837. *Lycodes terræ-novæ* Collett.
Newfoundland Banks.
Lycodes terræ-novæ Collett, Campagnes Scientifiques *L'Hirondelle*,
Poiss., 1896, 55, Newfoundland Banks in 25 fathoms.
3838. *Lycodes reticulatus* Reinhardt. *Akulliakitsoq; Spotted lycodes*.
North Atlantic from Greenland south to Narragansett Bay; also
northern Europe.
Lycodes reticulatus Reinhardt, Königl. Danske Vid. Selsk. Afh., VII,
1838, 167, Greenland.
Lycodes perspicillum Krøyer, Dansk. Vidensk. Selsk. Afhandl., XI,
1845, p. ccxxiii, Newfoundland.
3839. *Lycodes esmarkii* Collett.
North Atlantic; Gulf Stream, in about latitude 40°, to Finmark and
Spitzbergen.
Lycodes esmarkii Collett, Norges Fiske, 1875, 95; American specimens
from the Gulf Stream in about latitude 40°.
3840. *Lycodes jordani* Evermann and Goldsborough.
Puget Sound and southeastern Alaska.
Lycodes jordani Evermann and Goldsborough, Bull. U. S. Bur. Fish.,
XXVI, 1906, 343, fig. 120, Puget Sound.

3841. *Lycodes gracilis* Sars
Atlantic Ocean off Nova Scotia.
Lycodes gracilis Sars, Christ. Vid. Selsk. Forh., 1866, 40-45, Drøbak, Norway.
Lycodes zoarchus Goode and Bean, Oceanic Ichth., 1896, 308, off Nova Scotia.
3842. *Lycodes concolor* Gill and Townsend.
Bering Sea.
Lycodes concolor Gill and Townsend, Proc. Biol. Soc. Wash., XI, 1897, 233, Bering Sea in 276 fathoms.
3843. *Lycodes digitatus* Gill and Townsend.
Bering Sea.
Lycodes digitatus Gill and Townsend, Proc. Biol. Soc. Wash., XI, 1897, 232, Bering Sea in 49 fathoms.
3844. *Lycodes palearis* Gilbert.
Bristol Bay, Alaska.
Lycodes palearis Gilbert, Rept. U. S. Fish Com., XIX, 1893, 454, Bristol Bay, Alaska, at *Albatross* stations 3253 and 3254 in 36 and 46 fathoms.
3845. *Lycodes brevipes* Bean.
Aleutian Islands to Puget Sound.
Lycodes brevipes Bean, Proc. U. S. Nat. Mus., XIII, 1890, 38, between Unga and Nagai islands in 110 fathoms.
3846. *Lycodes anguis* Garman.
Off Lower California and Panama in deep water.
Lycodes anguis Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 133, off Bay of Panama.
3847. *Lycodes serpens* Garman.
Off Lower California in deep water.
Lycodes serpens Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 134, off Gulf of California.
3848. *Lycodes incisus* Garman.
Off Bay of Panama in deep water.
Lycodes incisus Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 135, Pl. XXX, off Bay of Panama.
3849. *Lycodes cicatrifer* Garman.
Off Bay of Panama in deep water.
Lycodes cicatrifer Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 136, Pl. XXXI, off Bay of Panama.
- Genus 1364. *LYCIAS* Jordan and Evermann.
Lycias Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2461 (*Lycodes seminudus* Reinhardt).
3850. *Lycias nebulosus* (Krøyer). *Cloudy lycodes*.
Greenland.
Lycodes nebulosus Krøyer, Königl. Danske Vidensk. Selsk. Afhand., XI, 1845, p. ccxxxii, Greenland.
3851. *Lycias seminudus* (Reinhardt). *Half-naked lycodes*.
North Atlantic, from Greenland to Spitzbergen.
Lycodes seminudus Reinhardt, Königl. Danske Selsk. Afhand., VII, 1838, 221, Omenak, Greenland.
- Genus 1365. *LYCENCHELYS* Gill.
Lycenchelys Gill, Proc. Acad. Nat. Sci. Phila., XXXVI, 1884, 180 (*Lycodes muræna* Collett).
3852. *Lycenchelys verrillii* (Goode and Bean).
Coast of Massachusetts and northward.
Lycodes verrillii Goode and Bean, Amer. Jour. Sci. Arts, XIV, 1877, 474; 27 miles south and west of Chebucto Head near Halifax.

3853. *Lycenchelys paxillus* (Goode and Bean).

Gulf Stream.

Lycodes paxillus Goode and Bean, Proc. U. S. Nat. Mus., II, 1879, 44, between La Have and Sable Island Banks.*Lycodes paxilloides* Goode and Bean, Bull. Mus. Comp. Zool., X, No. 5, 1883, 207, off Newfoundland.**3854. *Lycenchelys porifer* (Gilbert)**

Off Lower California.

Lycodes porifer Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 104, off Lower California at Albatross station 3009 in 857 fathoms.**Genus 1366. *LYCODOLEPIS* Bleeker.***Lycodalepis* Bleeker, Versl. Akad. Amst., ed. 2, VIII, 1874, 369 (*Lycodes mu osus* Richardson).**3855. *Lycodalepis polaris* (Sabine). *Arctic lycodes*.**

Gulf of Georgia and Alaska.

Blennius polaris Sabine, Parry's Jour., Voyage 1819-20, App. CCXII, north Georgia.*Lycodes turneri* Bean, Proc. U. S. Nat. Mus., I, 1878, 463, St. Michaels, Alaska.*Lycodes coccineus* Bean, Proc. U. S. Nat. Mus., IV, 1881, 144, Big Diomed Island, Bering Strait.**3856. *Lycodalepis mucosus* (Richardson).**

Arctic seas.

Lycodes mucosus Richardson, Last Arctic Voyage, 1855, 362, pl. 26, Northumberland Sound.**Genus 1367. *FURCIMANUS* Jordan and Evermann.***Furcella* Jordan and Evermann, Fishes North and Mid. Amer., 1896, 480 (*Lycodes diapterus* Gilbert); name preoccupied.*Furcimanus* Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2472 (*Lycodes diapterus* Gilbert).**3857. *Furcimanus diapterus* (Gilbert).**

Coasts of California and Oregon.

Lycodes diapterus Gilbert, Proc., U. S. Nat. Mus., XIV, 1891, 564, off coast of Oregon at Albatross stations 2892, 2896, and others in 82 to 376 fathoms.**Genus 1368. *LYCODONUS* Goode and Bean.***Lycodonus* Goode and Bean, Bull. Mus. Comp. Zool., X, No. 5, 1883, 208 (*L. mirabilis* Goode and Bean).**3858. *Lycodonus mirabilis* Goode and Bean.**

Off the New England coast.

Lycodonus mirabilis Goode and Bean, Bull. Mus. Comp. Zool., X, No. 5, 1883, 208, lat. 38° 20' 8" N., long. 73° 23' 20" W., in 740 fathoms.**Genus 1369. *LYCONEMA* Gilbert.***Lyconema* Gilbert, Rept. U. S. Fish Com., XIX, 1893, 471 (*L. barbatum* Gilbert).**3859. *Lyconema barbatum* Gilbert.**

Coast of Alaska.

Lyconema barbatum Gilbert, Rept. U. S. Fish Com., XIX, 1893, 471, pl. 35, coast of Alaska, at Albatross station 3129 in 204 fathoms.**Genus 1370. *LYCOGRAMMA* Gilbert.***Lycogramma* Gilbert, Proc. U. S. Nat. Mus., XLVIII, 1915, 364, (*Maynea brunnea* Bean).**3860. *Lycogramma brunnea* (Bean).**

Coast of California to Alaska.

Maynea brunnea Bean, Proc. U. S. Nat. Mus., XIII, 1890, 38, off Queen Charlotte Island in 876 fathoms.**Genus 1371. *MAYNEA* Cunningham.***Maynea* Cunningham, Trans. Linn. Soc. Lond., XXVII, 1871, 471 (*M. patagonica* Cunningham).

- 3861. *Maynea californica* Gilbert**
 Santa Barbara Islands.
Maynea californica Gilbert, Proc. U. S. Nat. Mus., XLVIII, 1915, 362,
 pl. 19, fig. 17, San Nicolas Island off southern California.
- 3862. *Maynea bulbiceps* Garman.**
 Off Bay of Panama in deep water.
Maynea bulbiceps Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 140,
 Pl. E, off Bay of Panama.
- Genus 1372. *BOTHROCARA* Bean.**
Bothrocara Bean, Proc. U. S. Nat. Mus., XIII, 1890, 38 (*B. mollis* Bean).
- 3863. *Bothrocara pusilla* (Bean).**
 Coast of Alaska north to Unalaska.
Maynea pusilla Bean, Proc. U. S. Nat. Mus., XIII, 1890, 39, Aleutian
 Islands, lat. 55° 10' N., long. 160° 18' W., in 110 fathoms.
- 3864. *Bothrocara mollis* Bean.**
 North Pacific to southern California.
Bothrocara mollis Bean, Proc. U. S. Nat. Mus., XIII, 1890, 39, off
 Queen Charlotte Islands in 876 fathoms.
- 3865. *Bothrocara remigera* Gilbert.**
 Monterey Bay.
Bothrocara remigera Gilbert, Proc. U. S. Nat. Mus., XLVIII, 1915, 366,
 pl. 20, fig. 19, Monterey Bay in 718 to 756 fathoms.
- Genus 1373. *BOTHROCAROPSIS* Garman.**
Bothrocaropsis Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 127
 (*B. alalonga* Garman).
- 3866. *Bothrocaropsis alalonga* Garman.**
 Off Gulf of California in deep water.
Bothrocaropsis alalonga Garman, Mem. Mus. Comp. Zool., XXIV,
 1899, 127, XXXII, off Gulf of California.
- 3867. *Bothrocaropsis rictolata* Garman.**
 Off Bay of Panama in deep water.
Bothrocaropsis rictolata Garman, Mem. Mus. Comp. Zool., XXIV,
 1899, 128, Pl. XXIII, off Bay of Panama.
- 3868. *Bothrocaropsis elongata* Garman.**
 Off Bay of Panama in deep water.
Bothrocaropsis elongata Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 129,
 Pl. XXXIII, off Bay of Panama.
- Genus 1374. *GYMNELIS* Reinhardt.**
Gymnelis Reinhardt, Dansk. Vidensk. Selsk. Afhandl., VII, 1838, 116,
 131 (*Ophidium viridis* Fabricius).
Cepolopolis Kaup, Archiv für Natur., 1856, 96 (*Ophidium viridis*
 Fabricius).
- 3869. *Gymnelis viridis* (Fabricius). *Unernak*.**
 Arctic seas south to Alaska and Nova Scotia.
Ophidium viridis Fabricius, Fauna Grœn., 1780, 141, Greenland.
Ophidium unernak Lacépède, Hist. Nat. Poiss., II, 1800, 280, Greenland.
 ?*Gymnelis pictus* Günther, Cat., IV, 1862, 324, no locality.
- 3870. *Gymnelis stigma* (Lay and Bennett).**
 Kotzebue Sound, Alaska.
Ophidium stigma Lay and Bennett, Zool. Beechey's Voy., 1839, 67,
 pl. 20, fig. 1, Kotzebue Sound.
Gymnelis viridis unimaculatus Richardson, Last Arctic Voyage, 1855,
 371, Northumberland Sound.
- 3871. *Gymnelis conorhynchus* Garman.**
 Off Bay of Panama in deep water.
Gymnelis conorhynchus Garman, Mem. Mus. Comp. Zool., XXIV, 1899,
 131, Pl. XXXI, off Bay of Panama.

Genus 1375. LYCOCARA Gill.

Uronectes Günther, Cat., IV, 1862, 325 (*Ophidium parrii* Ross); name preoccupied.

Lycocara Gill, Proc. Acad. Nat. Sci. Phila., XXXVI, 1884, 180 (*Ophidium parrii* Ross).

3872. *Lycocara parrii* (Ross).

Baffins Bay.

Ophidium parrii Ross, in Parry's Third Voyage, App., 1826, 109, Baffins Bay.

Genus 1376. MELANOSTIGMA Günther.

Melanostigma Günther, Proc. Zool. Soc. Lond., 1881, 20 (*M. gelatinosum* Günther).

3873. *Melanostigma gelatinosum* Günther.

Deep waters of the western Atlantic; originally known from the Straits of Magellan, but since obtained in various localities from Cape Cod to the West Indies.

Melanostigma gelatinosum Günther, Proc. Zool. Soc. Lond., 1881, 21, pl. 2, fig. A, Straits of Magellan.

3874. *Melanostigma pammelas* Gilbert.

Coast of Alaska.

Melanostigma pammelas Gilbert, Rept. U. S. Fish Com., XIX, 1893, 472, pl. 35, coast of Alaska at Albatross station 3202, lat. 36° 46' 10" N., long. 121° 58' 45" W., in 382 fathoms.

Genus 1377. PHYCOCÆTES Jenyns.

Phycocætes Jenyns, Zool. Beagle, 1842, 168 (*P. latitans* Jenyns).

3875. *Phycocætes suspectus* Garman.

Off Gulf of California in deep water.

Phycocætes suspectus Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 137, Pl. XXX, off Gulf of California.

Family 288. LYCODAPODIDÆ**Genus 1378. LYCODAPUS Gilbert.**

Lycodapus Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 107 (*L. fierasfer* Gilbert).

3876. *Lycodapus fierasfer* Gilbert.

Pacific coast of America, Lower California to southeastern Alaska.

Lycodapus fierasfer Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 108, off Lower California and Washington at Albatross stations 2980, 3010, and 3072 in 610 to 1005 fathoms.

3877. *Lycodapus dermatinus* Gilbert.

Coast of California in deep water.

Lycodapus dermatinus Gilbert, Rept. U. S. Fish Com., XIX, 1893, 471, pl. 35, coast of California at Albatross station 3162, 37° 54' 10" N., 123° 30' W., in 552 fathoms.

3878. *Lycodapus parviceps* Gilbert.

Bering Sea, north of Unalaska Island.

Lycodapus parviceps Gilbert, Rept. U. S. Fish Com., XIX, 1893, 455, Bering Sea north of Unalaska Island at Albatross station 3324 in 109 fathoms.

3879. *Lycodapus extensus* Gilbert.

Bering Sea north of Unalaska Island.

Lycodapus extensus Gilbert, Rept. U. S. Fish Com., XIX, 1893, 455, Bering Sea north of Unalaska Island at Albatross station 3324 in 109 fathoms.

3880. *Lycodapus lycodon* Gilbert.

Monterey Bay.

Lycodapus lycodon Gilbert, Proc. U. S. Nat. Mus., XLVIII, 1915, 371, Monterey Bay, 152 to 268 fathoms.

3881. *Lycodapus grossidens* Gilbert.
Bering Sea.
Lycodapus grossidens Gilbert, Proc. U. S. Nat. Mus., XLVIII, 1915,
373, Funter Bay, southeast Alaska, in 350 fathoms.
3882. *Lycodapus attenuatus* Gilbert.
Monterey Bay.
Lycodapus attenuatus Gilbert, Proc. U. S. Nat. Mus., XLVIII, 1915,
372, pl. 21, Monterey Bay, in 285 to 357 fathoms.
3883. *Lycodapus mandibularis* Gilbert.
Monterey Bay.
Lycodapus mandibularis Gilbert, Proc. U. S. Nat. Mus., XLVIII, 1915,
369, pl. 20, fig. 20, Monterey Bay, in 144 to 293 fathoms.

Family 289. DEREPODICHTHYIDÆ

Genus 1379. DEREPODICHTHYS Gilbert.

Derepodichthys Gilbert, Rept. U. S. Fish Com., XIX, 1893, 456 (*D. alepidotus* Gilbert).

3884. *Derepodichthys alepidotus* Gilbert.
Coast of British Columbia, off Queen Charlotte Island.
Derepodichthys alepidotus Gilbert, Rept. U. S. Fish Com., XIX, 1893,
456, Queen Charlotte Island at Albatross station 3342 in 1,588 fathoms.

Family 290. BROTULIDÆ

Genus 1380. BROTULA Cuvier.

Brotula Cuvier, Règne Anim., ed. 2, II, 1829, 335 (*Enchelyopus barbatus* Bloch and Schneider).

3885. *Brotula barbata* (Bloch and Schneider). *Brotula*.
West Indies.
Enchelyopus barbatus Bloch and Schneider, Syst. Ichth., 1801, 52,
Habana; after Parra.
Brotula Parra, Dif. Piezas Hist. Nat., 1787, 70, lam. 31, fig. 2, Habana.

Genus 1381. STYGICOLA Gill.

Stygicola Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 252 (*Lucifuga dentatus* Poey).

3886. *Stygicola dentatus* (Poey).
Caves in southern Cuba.
Lucifuga dentatus Poey, Memorias, II, 1861, 102, cave of Cajío, Cuba.

Genus 1382. LUCIFUGA Poey.

Lucifuga Poey, Memorias, II, 1860, 95 (*L. subterraneus* Poey).

3887. *Lucifuga subterranea* Poey. *Pez ciego*.
Cuba, in caves.
Lucifuga subterraneus Poey, Memorias, II, 1861, 96, caves of San Antonio in southern Cuba.

Genus 1383. BROSMOPHYCIS Gill.

Brosomphycis Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 168
(*Brosmius marginatus* Ayres).
Halias Ayres, Proc. Calif. Acad. Nat. Sci., II, 1861, 52 (*Brosmius marginatus* Ayres).

3888. *Brosomphycis marginatus* (Ayres).
San Francisco to Puget Sound; scarce, recently taken at San Pedro,
Calif.
Brosmius marginatus Ayres, Proc. Calif. Acad. Nat. Sci., I, 1854, 13,
Bay of San Francisco.

Genus 1384. OGILBIA Jordan and Evermann.

Ogilbia Jordan and Evermann, in Evermann and Kendall, Bull. U. S. Fish Com., XVII, 1897, 132 (*O. cayorum* Evermann and Kendall).

3889. *Ogilbia cayorum* Evermann and Kendall.
Key West.
Ogilbia cayorum Evermann and Kendall, Bull. U. S. Fish Com., XVII, 1897, 132, pl. 9, fig. 14, Key West, Fla.
3890. *Ogilbia verrillii* (Garman).
Bermudas.
Brosmophycis verrilli Garman, Trans. Conn. Acad. Sci., X, 1900, 511, Bailey Bay, Bermuda Islands.
3891. *Ogilbia ventralis* (Gill).
Lower California, about Cape San Lucas.
Brosmophycis ventralis Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 253, Cape San Lucas.
- Genus 1385. **BYTHITES** Reinhardt.
Bythites Reinhardt, Kongl. Dansk. Vidensk. Selsk. Skrift. Afhandl., VII, 1837, 178 (*B. fuscus* Reinhardt).
3892. *Bythites fuscus* Reinhardt.
The only specimen known, now in the Museum at Copenhagen, was obtained in Greenland nearly a century ago.
Bythites fuscus Reinhardt, Kongl. Dansk. Vidensk. Selsk. Skrift. Afhandl., VII, 1838, 179, Greenland.
- Genus 1386. **CATÆTYX** Günther.
Catætyx Günther, Challenger Rept., XXII, 1887, 104 (*Siremba messieri* Günther).
3893. *Catætyx rubrirostris* Gilbert.
Coast of California south of Point Conception, in deep water.
Catætyx rubrirostris Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 111, coast of California, at Albatross stations 2909, 2925, and 2936 in 205 and 356 fathoms.
3894. *Catætyx simus* Garman.
Off Galapagos Islands to Bay of Panama, in deep water.
Catætyx simus Garman, Mem. Mus. Comp. Zool., XXIV, 1899, Pl. E 1, 168, off Bay of Panama.
- Genus 1387. **DICROMITA** Goode and Bean.
Dicromita Goode and Bean, Oceanic Ichth., 1895, 319 (*D. agassizii* Goode and Bean).
3895. *Dicromita agassizii* Goode and Bean.
Granada and Gulf of Mexico.
Dicromita agassizii Goode and Bean, Oceanic Ichth., 1896, 319, fig. 285, Gulf of Mexico in 26 fathoms.
- Genus 1388. **MONOMITOPUS** Alcock.
Monomitopus Alcock, Ann. Mag. Nat. Hist., ser. 6, VI, 1890, 297 (*Siremba nigripinnus* Alcock).
3896. *Monomitopus torvus* Garman.
Off Bay of Panama in deep water.
Monomitopus torvus Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 157, Pl. XL, off Bay of Panama.
- Genus 1389. **MONOMEROPUS** Garman.
Monomeropus Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 157 (*Monomeropus malispinosus* Garman).
3897. *Monomeropus malispinosus* Garman.
Off Bay of Panama in deep water.
Monomeropus malispinosus Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 158, Pl. XL, off Bay of Panama.
- Genus 1390. **BASSOZETUS** Gill.
Bathynectes Günther, Ann. Nat. Hist., II, 1878, 20 (*B. compressus* Günther); name preoccupied.
Bassozetus Gill, Proc. U. S. Nat. Mus., VI, 1883, 259 (*B. normalis* Gill).
Bathyonus Goode and Bean, Proc. U. S. Nat. Mus., VIII, 1886, 603 (*Bassozetus catena* Goode and Bean).

3898. *Bassozetes compressus* (Günther).
Gulf of Mexico and elsewhere in deep water.
Bathynectes compressus Günther, Ann. Mag. Nat. Hist., II, 1878, 20,
southeast of New Guinea in 1,400 fathoms.
3899. *Bassozetes normalis* Gill.
West Indies, off Dominica, to 40° north latitude, in region of Gulf
Stream.
Bassozetes normalis Gill, Proc. U. S. Nat. Mus., VI, 1883, 259, Gulf
Stream, at Albatross station 2042, 39° 33' N., 68° 26' 45" W., in
1,555 fathoms.
3900. *Bassozetes catena* (Goode and Bean).
Gulf of Mexico in deep water.
Bathyonus catena Goode and Bean, Proc. U. S. Nat. Mus., VIII, 1885,
603, at Albatross station 2379, 28° 00' 15" N., 87° 42' W., in 1,467
fathoms.
3901. *Bassozetes tænia* (Günther).
Mid-Atlantic.
Bathyonus tænia Günther, Challenger Rept., XXII, 1887, 110, pl. 23,
fig. A, Mid-Atlantic.
3902. *Bassozetes nasus* Garman.
Off Gulf of Panama and Pacific coast of southern Mexico in deep water.
Bassozetes nasus Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 159,
Pl. LXXVII, off Pacific coast of southern Mexico.
- Genus 1391. *ERETMICHTHYS* Garman.
Eretmichthys Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 164
(*E. pinnatus* Garman).
3903. *Eretmichthys pinnatus* Garman.
Galapagos Islands to Bay of Panama in deep water.
Eretmichthys pinnatus Garman, Mem. Mus. Comp. Zool., XXIV, 1899,
165, Pl. XXXV, off Bay of Panama.
3904. *Eretmichthys ocella* Garman.
Off Bay of Panama in deep water.
Eretmichthys ocella Garman, Mem. Mus. Comp. Zool., XXIV, 1899,
166, Pl. XXVII, off Bay of Panama.
- Genus 1392. *MÆBIA* Goode and Bean.
Mæbia Goode and Bean, Oceanic Ichth., 1895, 331 (*Bathynectes gracilis*
Günther).
3905. *Mæbia promelas* (Gilbert).
Gulf of California.
Porogadus promelas Gilbert, Proc. U. S. Nat. Mus., XIV, 1891, 546,
Gulf of California in 1,005 fathoms.
- Genus 1393. *NEOBYTHITES* Goode and Bean.
Neobythites Goode and Bean, Proc. U. S. Nat. Mus., VIII, 1885, 600
(*N. gillii* Goode and Bean).
3906. *Neobythites gillii* Goode and Bean.
Gulf of Mexico to Brazil, in deep water.
Neobythites gillii Goode and Bean, Proc. U. S. Nat. Mus., VIII, 1885,
601, Gulf of Mexico, at Albatross station 2402, 28° 36' N., 85° 33' W.,
in 111 fathoms
Neobythites ocellatus Günther, Challenger Rept., XXII, 1887, 103, pl. 21,
fig. B, off Pernambuco in 350 fathoms.
3907. *Neobythites marginatus* Goode and Bean.
Off Barbados.
Neobythites marginatus Goode and Bean, Bull. Mus. Comp. Zool., XII,
1886, off Barbados in 209 fathoms.
- Genus 1394. *HOLCOMYCTERONUS* Garman.
Holcomycteronus Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 162
(*H. digitatus* Garman).

- 3908. *Holcomycteronus digittatus* Garman.**
Gulf of California to Colombia in deep water.
Holcomycteronus digittatus Garman, Mem. Mus. Comp. Zool., XXXVI, 1899, 163, Gulf of California.
- Genus 1395. BENTHOCOMETES Goode and Bean.**
Benthocometes Goode and Bean, Oceanic Ichth., 1895, 327 (*Neobythites robustus* Goode and Bean).
- 3909. *Benthocometes robustus* (Goode and Bean).**
West Indies to lat. 29° N. in Gulf Stream.
Neobythites robustus Goode and Bean, Bull. Mus. Comp. Zool., XII, 1883, 161, off Morro Castle, Cuba.
- Genus 1396. BASSOGIGAS Gill.**
Bassogigas Gill, in Goode and Bean, Oceanic Ichth., 1895, 328 (*B. gillii* Goode and Bean).
- 3910. *Bassogigas gillii* Goode and Bean.**
Off Cape Henlopen, Del.
Bassogigas gillii Goode and Bean, Oceanic Ichth., 1895, 328, fig. 291, off Cape Henlopen, Del., at Albatross station 2684 in 1,106 fathoms.
- 3911. *Bassogigas stelliferoides* (Gilbert)**
Off Bay of Panama in deep water, and Gulf of California.
Neobythites stelliferoides Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 112, off Lower California at Albatross station 2996 in 112 fathoms.
- Genus 1397. BARATHRODEMUS Goode and Bean.**
Barathrodemus Goode and Bean, Bull. Mus. Comp. Zool., X, No. 5, 1882, 200 (*B. manatinus* Goode and Bean).
- 3912. *Barathrodemus manatinus* Goode and Bean.**
Gulf Stream, north to Bermudas.
Barathrodemus manatinus Goode and Bean, Bull. Mus. Comp. Zool., X, No. 5, 1882, 200, lat. 33° 51' 20" N., long. 76° W., in 647 fathoms.
- Genus 1398. NEMATONUS Günther.**
Nematonus Günther, *Challenger* Rept., XXII, 1887, 114 (*Bathyonus pectoralis* Goode and Bean).
- 3913. *Nematonus pectoralis* (Goode and Bean).**
Gulf of Mexico and off Dominica.
Bathyonus pectoralis Goode and Bean, Proc. U. S. Nat. Mus., VIII, 1885, 604, Albatross station 2380, lat. 28° 02' 30" N., long. 87° 43' 45" W., in 1,430 fathoms.
- Genus 1399. POROGADUS Goode and Bean.**
Porogadus Goode and Bean Proc. U. S. Nat. Mus., VIII, 1885, 602 (*P. miles* Goode and Bean).
- 3914. *Porogadus miles* Goode and Bean.**
Atlantic coast, off Delaware Bay, in deep water.
Porogadus miles Goode and Bean, Proc. U. S. Nat. Mus., VIII, 1885, 602, at Albatross station 2230, lat. 38° 27' N., long. 73° 2' W., in 1,168 fathoms.
- 3915. *Porogadus longiceps* Garman.**
Off Cocos Islands to Bay of Panama in deep water.
Porogadus longiceps Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 153, Pl. F, off Bay of Panama.
- 3916. *Porogadus atripectus* Garman.**
Off Bay of Panama and Pacific coast of Mexico in deep water.
Porogadus atripectus Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 154, Pl. XXXVII, off Bay of Panama.
- 3917. *Porogadus breviceps* Garman.**
Gulf of California in deep water.
Porogadus breviceps Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 155, Gulf of California.
- Genus 1400. PENOPUS Goode and Bean.**
Penopus Goode and Bean, Oceanic Ichth., 1895, 335 (*P. macdonaldi* Goode and Bean).

3918. *Penopus macdonaldi* Goode and Bean.

Gulf Stream.

Penopus macdonaldi Goode and Bean, Oceanic Ichth., 1895, 336, fig. 293, Gulf Stream at Albatross station 2716, lat. 38° 29' 30" N., long. 70° 57' W., in 1,631 fathoms.**Genus 1401. *DICROLENE* Goode and Bean.***Dicrolene* Goode and Bean, Bull. Mus. Comp. Zool., X, No. 5, 1882, 202 (*D. introniger* Goode and Bean).**3919. *Dicrolene intronigra* Goode and Bean.**

Gulf Stream, from lat. 15° to 40° N.

Dicrolene intronigra Goode and Bean, Bull. Mus. Comp. Zool., X, No. 5, 1882, 202, Gulf Stream, lat. 34° N.**3920. *Dicrolene pullata* Garman.**

Off Gulf of Panama in deep water.

Dicrolene pullata Garman, Mem. Comp. Zool., XXIV, 1899, 152, off Gulf of Panama.**3921. *Dicrolene nigra* Garman.**

Off Galapagos Islands to Bay of Panama in deep water.

Dicrolene nigra Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 150, Pl. XXXVII, off Galapagos Islands.**3922. *Dicrolene filamentosa* Garman.**

Off Bay of Panama and Pacific coast of Mexico in deep water.

Dicrolene filamentosa Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 149, Pl. F, off Bay of Panama.**Genus 1402. *MIXONUS* Günther.***Mixonus* Günther, Challenger Rept., XXII, 1887, 108 (*Bathynectes laticeps* Günther).**3923. *Mixonus laticeps* (Günther).**

Mid-Atlantic in deep water.

Bathynectes laticeps Günther, Ann. Mag. Nat. Hist., II, 1878, 20, Mid-Atlantic at Challenger station 104 in 2,500 fathoms.*Siremo guentheri* Vaillant, Expd. Sci. Travailleur et Talisman, 1888, 268, Pl. XXIV, fig. 5, off the Cape Verde Islands at a depth of 3,200 meters.**3924. *Mixonus caudalis* Garman.**

Between Galapagos and Cocos Islands in deep water.

Mixonus caudalis Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 148, Pl. XXXVI, off Cocos Islands.**Genus 1403. *ACANTHONUS* Günther.***Acanthonus* Günther, Ann. Mag. Nat. Hist., II, 1878, 22 (*A. armatus* Günther).**3925. *Acanthonus spinifer* Garman.**

Off Bay of Panama in deep water.

Acanthonus spinifer Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 170, Pl. F, off Bay of Panama.**Genus 1404. *LEUCICORUS* Garman.***Leucicorus* Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 146 (*L. lusciosus* Garman).**3926. *Leucicorus lusciosus* Garman.**

Off Pacific coast of Mexico in deep water.

Leucicorus lusciosus Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 146, Pl. XXXVIII, off Pacific coast of Mexico.**Genus 1405. *SCIADONUS* Garman.***Sciadonus* Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 171 (*S. pedicellaris* Garman).**3927. *Sciadonus pedicellaris* Garman.**

Off Cocos Island in deep water.

Sciadonus pedicellaris Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 172, Pl. F, off Cocos Island.

Genus 1406. *LAMPROGRAMMUS* Alcock.

Lamprogrammus Alcock, Ann. Mag. Nat. Hist., VIII, 1891, 32 (*L. niger* Alcock).

3928. *Lamprogrammus illustris* Garman.

Off Bay of Panama.

Lamprogrammus illustris Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 174, Pl. XXXIV, off Bay of Panama.

Genus 1407. *BARATHRONUS* Goode and Bean.

Barathronus Goode and Bean, Mem. Mus. Comp. Zool., XII, 1886, 164 (*B. bicolor* Goode and Bean).

3929. *Barathronus bicolor* Goode and Bean.

Off Guadalupe Island in deep water.

Barathronus bicolor Goode and Bean, Bull. Mus. Comp. Zool., XII, 1886, 164, off Guadalupe at Blake station 71 in 769 fathoms.

Genus 1408. *APHYONUS* Günther.

Aphyonus Günther, Ann. Mag. Nat. Hist., II, 1878, 22 (*A. gelatinosus* Günther).

3930. *Aphyonus mollis* Goode and Bean.

Gulf of Mexico in deep water.

Aphyonus mollis Goode and Bean, Bull. Mus. Comp. Zool., XII, 1886, 163, Gulf of Mexico at Blake station 221, lat. 24° 36' N., long. 84° 5' W., in 955 fathoms.

Genus 1409. *ALLECTOR* Heller and Snodgrass.

Allector Heller and Snodgrass, Proc. Wash. Acad. Sci., V, 1903, 228 (*A. chelonix* Heller and Snodgrass).

3931. *Allector chelonix* Heller and Snodgrass.

Between Clipperton Island and Galapagos Archipelago.

Allector chelonix Heller and Snodgrass, Proc. Wash. Acad. Sci., V, 1903, 228, fig. 1, between Clipperton Island and the Galapagos.

Family 291. *OPHIDIIDÆ*Genus 1410. *LEPOPHIDIUM* Gill.

Lepophidium Gill, Am. Nat., XXIX, 1895, 16; substitute for

Leptophidium Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 210 (*L. profundorum* Gill); preoccupied in serpents by *Leptophidium* Halliwell, 1860.

3932. *Lepophidium marmoratum* (Goode and Bean).

Gulf Stream.

Lepophidium marmoratum Goode and Bean, Proc. U. S. Nat. Mus., VIII, 1885, 423, lat. 23° 10' 39" N., long. 82° 20' 21" W., in 213 fathoms.

3933. *Lepophidium profundorum* (Gill).

Gulf Stream, off coast of Florida.

Leptophidium profundorum Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 211, Gulf Stream, off coast of Florida.

3934. *Lepophidium cervinum* (Goode and Bean).

Gulf Stream.

Lepophidium cervinum Goode and Bean, Proc. U. S. Nat. Mus., VIII, 1885, 422, lat. 40° 01' N., long. 69° 56' W., depth 76 fathoms.

3935. *Lepophidium brevibarbe* (Cuvier).

West Indies and Brazil.

Ophidium brevibarbe Cuvier, Règne Anim., ed. 2, II, 1829, 359, Brazil.

3936. *Lepophidium prorates* (Jordan and Bollman).

Panama and south of Panama.

Leptophidium prorates Jordan and Bollman, Proc. U. S. Nat. Mus., XII, 1889, 172, Panama and south of Panama.

3937. *Lepophidium emmelas* (Gilbert).

Coast of Lower California.

Leptophidium emmelas Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 110, coast of Lower California at Albatross stations 3007 and 3008 in 362 and 306 fathoms.

3938. *Lepophidium pardale* (Gilbert).
Lower California.
Leptophidium pardale Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 108,
off Lower California.
3939. *Lepophidium microlepis* (Gilbert).
Off Lower California
Leptophidium microlepis Gilbert, Proc. U. S. Nat. Mus., XIII, 1890,
109, off Lower California.
3940. *Lepophidium stigmatistium* (Gilbert).
Coast of Lower California.
Leptophidium stigmatistium Gilbert, Proc. U. S. Nat. Mus., XIII, 1890,
109, off Lower California at Albatross station 2996 in 112 fathoms.
- Genus 1411. *OPHIDION* Linnæus. *Cusk eels*.
Ophidion Linnæus, Syst. Nat., Ed. X, 1758, 259 (*Ophidion barbatum*
Linnæus).
Ophidium of most authors; revised spelling.
3941. *Ophidion graëllsi* Poey.
Cuba.
Ophidion graëllsi Poey, Memorias, II, 1861, 425, Habana
3942. *Ophidion beani* Jordan and Gilbert.
Gulf of Mexico; Snapper Banks off Pensacola, Fla.
Ophidion beani Jordan and Gilbert, Proc. U. S. Nat. Mus., VI, 1883, 143,
Snapper Banks off Pensacola.
3943. *Ophidion holbrooki* (Putnam).
Key West, Fla.; Gulf of Mexico.
Ophidium holbrooki Putnam, Proc. Bost. Soc. Nat. Hist., XVI, 1874,
342, Key West, Fla.
- Genus 1412. *RISSOLA* Jordan and Evermann.
Rissola Jordan and Evermann, Check List, 1895, 483 (*Ophidium mar-*
ginatum DeKay).
3944. *Rissola marginata* (DeKay). *Sand eel; Slippery dick*.
South Atlantic coast of United States from New York south to Pensa-
cola.
Ophidium marginatum DeKay, New York Fauna: Fishes, 1842, 315,
New York Harbor.
? *Ophidium josephi* Girard, U. S. and Mex. Bound. Surv., Zool., 1859,
29, Saint Joseph Island, Tex.
- Genus 1413. *OTOPHIDIUM* Gill.
Otophidium Gill, in Jordan, Cat. Fish. N. Amer., 1885, 914 (*Genypterus*
omostigma Jordan and Gilbert).
Chilaria Jordan and Evermann, Check List, 1895, 482 (*Ophidium taylori*
Girard).
3945. *Otophidium taylori* (Girard).
Coast of California, from Monterey to San Diego.
Ophidium taylori Girard, Pac. R. R. Surv., X, Pt. 4, Fishes, 1858, 138,
Monterey, Calif.
3946. *Otophidium omostigma* (Jordan and Gilbert).
Gulf of Mexico, Pensacola snapper banks.
Genypterus omostigma Jordan and Gilbert, Proc. U. S. Nat. Mus., V,
1882, 301, Pensacola snapper banks.
3947. *Otophidium scrippsi* Hubbs.
Long Beach to Cedros Island, Calif.
Otophidium scrippsi Hubbs, Univ. Calif. Publ. Zool., XVI, 1916, 166,
pl. 20, Cedros Island, off coast of Lower California.
3948. *Otophidium galeoides* (Gilbert).
Coast of Lower California.
Otophodon galeoides Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 110,
off Lower California.

3949. *Otophidium welshi* Nichols and Breder.

Coast of Texas.

Otophidium welshi Nichols and Breder, Proc. Biol. Soc. Wash., XXXV, 1922, 15, fig. 3, Texas, *Grampus* station 10478, southwest from Brayes Light.**Family 292. CARAPIDÆ****Genus 1414. CARAPUS Rafinesque.***Carapus* Rafinesque, Indice, 1810, 57, restricted by the International Commission of Nomenclature to *Ophidium imberbe*⁹⁰ Linnæus.*Fierasfer* Cuvier, Règne Anim., ed. 1, II, 1817, 239 (*Ophidium imberbe* Linnæus).*Echadon* Thompson, Proc. Zool. Soc. Lond., 1837, 55 (*E. drummondi* Thompson).*Diaphasia* Lowe, loc. cit., 1843, 92 (*Gymnotus acus* Brunnich).*Oxybeles* Richardson, Voy. *Erebus* and *Terror*, Fishes, 1844-48, 73 (*O. homei* Richardson).*Porobronchus* Kaup, Ann. Mag. Nat. Hist., 1860, 272 (*P. linearis* Kaup; larva of *Fierasfer acus*).*Vexillifer* Gasco, Bull. Assoc. Nat. Med. Napoli, 1870, 59 (*V. dephillippi* Gasco; larva of *Fierasfer acutus*).*Lefroyia* Jones, Zoologist, IX, 1874, 3838 (*L. bermudensis* Jones).**3950. *Carapus affinis* (Günther). Pearlfish.**

Lower California to Panama; abundant about the Pearl Islands off Panama, north to Point Loma, San Diego, Calif.

Fierasfer affinis Günther, Cat., IV, 1862, 381, no locality given.*Fierasfer dubius* Putnam, Proc. Bost. Soc. Nat. Hist., XVI, 1874, 344, Pearl Islands.**3951. *Carapus arenicola* (Jordan and Gilbert).**

Pacific coast of Mexico

Fierasfer arenicola Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 363, Mazatlan, Mexico.**3952. *Carapus bermudensis* (Jones).**

West Indies; recorded from Bermuda, Habana, Key West, and St. Thomas.

Lefroyia bermudensis Jones, Zoologist, IX, 1874, 3837, Bermuda.**Genus 1415. LEPTOFIERASFER Meek and Hildebrand.***Leptofierasfer* Meek and Hildebrand, Field Mus. Nat. Hist., Zool., XV, 1928, 964 (*L. macrurus* Meek and Hildebrand).**3953. *Leptofierasfer macrurus* Meek and Hildebrand.***Leptofierasfer macrurus* Meek and Hildebrand, Field Mus. Nat. Hist., Zool., XV, 1928, 964, Pl. XCIX, fig. 1, Chame Point, Panama.**Suborder HAPLODOCI****Family 293. BATRACHOIDIDÆ****Genus 1416. BATRACHOIDES Lacépède.***Batrachoides* Lacépède, Hist. Nat. Poiss., II, 1800, 451 (*B. tau* Lacépède); not *Gadus tau* Linnæus = *Batrachus surinamensis* Schneider.*Batrachus* Schneider, ed. Bloch, Syst. Ichth., 1801, 42 (*B. surinamensis* Schneider); substitute for *Batrachoides*.*Batrictius* Rafinesque, Anal. Nat., 1815, 82; substitute for *Batrachoides*.**3954. *Batrachoides surinamensis* (Schneider). Sapo.**

Coast of Guiana and Brazil.

Batrachus surinamensis Schneider, ed. Bloch, Syst. Ichth., 1801, 43, Surinam; from a specimen in the museum of Paris.⁹⁰ With this decision we do not willingly concur, as the name *Carapus* is clearly cognate with *Gymnotus carapo*, a species of Gymnotidæ included but not named in the original account.

3955. *Batrachoides goldmani* Evermann and Goldsborough.
Rio Usumacinta at Montecristo, Tabasco, Mexico.
Batrachoides goldmani Evermann and Goldsborough, Bull. U. S. Fish
Com., XXI, 1901, 159, fig. 8, Rio Usumacinta, Mexico.
3956. *Batrachoides boulengeri* Gilbert and Starks.
Bay of Panama.
Batrachoides boulengeri Gilbert and Starks, Mem. Calif. Acad. Sci.,
IV, 1904, 182, Pl. XXXI, Bay of Panama.
3957. *Batrachoides pacifici* (Günther).
Panama.
Batrachus pacifici Günther, Cat., III, 1861, 173, Panama.
- Genus 1417. OPSANUS Rafinesque. *Toadfishes*.
Opsanus Rafinesque, Amer. Month. Mag., II, 1818, 203 (*O. cerapalus*
Rafinesque=*Gadus tau* Linnæus).
Batrachus of authors, not of Schneider.
3958. *Opsanus tau* (Linnæus). *Toadfish*; *Sapo*; *Slimer*; *Oysterfish*; *Scorpion*.
Atlantic coast, Massachusetts to the West Indies.
Gadus tau Linnæus, Syst. Nat., ed. XII, 1766, 439, Charleston, S. C.
Cottus glaber Schöpfung, Schrift. Naturf. Freunde, VII, 1788, 146, Long
Island.
Cottus chætodon Bloch and Schneider, Syst. Ichth., 1801, 62, New York;
after Schöpfung.
Lophius bufo Mitchell, Trans. Lit. Phil. Soc., I, 1815, 463, New York.
Opsanus cerapalus Rafinesque, Amer. Month. Mag., II, 1818, 204,
south coast of Long Island.
Batrachoides vernullas LeSueur, Mém. Mus. Hist. Nat., V, 1819, 157,
pl. 17, coast of Rhode Island.
Batrachoides variegata LeSueur, Jour. Acad. Nat. Sci. Phila., III, pt. 2,
1824, 398, Egg Harbor, N. J.
Batrachus celatus DeKay, New York Fauna: Fishes, 1842, 170, pl. 50,
fig. 161, New York.
3959. *Opsanus hildebrandi* Breder.
Colon Market, Panama.
Opsanus hildebrandi Breder, Amer. Mus. Novit., No. 188, Sept. 28,
1925, I, Colon Market, Panama; place of collection unknown.
3960. *Opsanus pardus* (Goode and Bean). *Sapo*.
Gulf of Mexico in deep water.
Batrachus tau pardus Goode and Bean, Proc. U. S. Nat. Mus., II, 1879,
336, Pensacola snapper banks
- Genus 1418. PORICHTHYS Girard. *Midshipmen*.
Porichthys Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 141 (*P.*
notatus Girard).
3961. *Porichthys notatus* Girard. *Singingfish*; *Midshipman*; *Cabezon*; *Sapo*.
Pacific coast from Puget Sound to Panama.
Porichthys notatus Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 141,
San Francisco.
3962. *Porichthys margaritatus* (Richardson).
Pacific coast of tropical America.
Batrachus margaritatus Richardson, Voy. Sulphur, Fishes, 1844-1843,
67, Pacific coast of Central America.
Porichthys nautopædium Jordan and Bollman, Proc. U. S. Nat. Mus.,
XII, 1889, 171, Pacific Ocean off coast of Colombia in 16 fathoms.
3963. *Porichthys greeniei* Gilbert and Starks.
Panama Bay.
Porichthys greeniei Gilbert and Starks, Mem. Calif. Acad. Sci., IV, 1904,
184, Panama Bay.
- Genus 1419. NAUTOPÆDIUM Jordan.
Nautopædium Jordan, Proc. Acad. Nat. Sci. Phila., 1919, 342 (*Batrachus*
porosissimus Cuvier and Valenciennes).

3964. *Nautopædium porosissimum* (Cuvier and Valenciennes). *Bagre sapo*. South Carolina to Montevideo; Pensacola.
Batrachus porosissimus Cuvier and Valenciennes, Hist. Nat. Poiss., XII, 1837, 373 (501), Surinam, Cayenne, Rio Janeiro, and St. Catherine.
Porichthys plectrodon Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 291, Galveston, Tex.

Genus 1420. **THALASSOPHRYNE** Gunther. *Poison toadfishes*.

Thalassophryne Gunther, Cat., III, 1861, 175 (*T. maculosa* Gunther).
Dæctor Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2325 (*Thalassophryne dowi* Jordan and Gilbert).

Subgenus **THALASSOPHRYNE**.

3965. *Thalassophryne maculosa* Gunther.
 Caribbean Sea.
Thalassophryne maculosa Gunther, Cat., III, 1861, 175, Puerto Cabello near Aspinwall.

3966. *Thalassophryne reticulata* Gunther.
 Panama.
Thalassophryne reticulata Gunther, Proc. Zool. Soc. Lond., 1864, 150, 155, Panama.

Subgenus **DÆCTOR** Jordan and Evermann.

3967. *Thalassophryne dowi* (Jordan and Gilbert).
 Pacific coast of North America from Punta Arenas to Panama.
Thalassophryne dowi Jordan and Gilbert, Proc. U. S. Nat. Mus., X, 1887, 388, Punta Arenas.

Order YY. XENOPTERYGII

Family 294. GOBIESOCIDÆ

Genus 1421. **CAULARCHUS** Gill.

Caularchus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 330 (*Lepadogaster mæandricus* Girard=*Lepadogaster reticulatus* Girard); name preoccupied.

3968. *Caularchus mæandricus* (Girard). *Suckfish*.
 Pacific coast of United States, from Vancouver Island to Monterey.
Lepadogaster reticulatus Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 155, San Luis Obispo, Calif.; name preoccupied.
Lepadogaster mæandricus Girard, Pac. R. R. Surv., X, Pt. 4, Fishes, 1858, 130, San Luis Obispo, Calif., and the Farallons.

Genus 1422. **BRYSSETÆRES** Jordan and Evermann.

Bryssætæres Jordan and Evermann, Proc. Calif. Acad. Sci., 2d ser., VI, 1896, 230 (*Gobiesox pinniger* Gilbert).

3969. *Bryssætæres pinniger* (Gilbert).
 Gulf of California; known from Puerto Refugio (Angel Island), San Luis Gonzales Bay, and La Paz.
Gobiesox pinniger Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 94, Puerto Refugio, Gulf of California.

Genus 1423. **CAULISTIUS** Jordan and Evermann.

Caulistius Jordan and Gilbert, Check List, 1895, 491 (*Gobiesox papillifer* Gilbert).

Bryssophilus Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2329 (*Gobiesox papillifer* Gilbert); accidental duplication overlooked in proof reading.

3970. *Caulistius papillifer* (Gilbert).
 Magdalena Bay, Lower California.
Gobiesox papillifer Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 96, Magdalena Bay, Lower California.

Genus 1424. **GOBIESOX** Lacépède. *Clingfishes*.

Gobiesox Lacépède, Hist. Nat. Poiss., II, 1800, 595 (*G. cephalus* Lacépède).

Megaphalus Rafinesque, Anal. Nat., 1815, 86 (substitute for *Gobiesox* Lacépède).

Sicyogaster Brisout de Barneville, Rev. Zool., 1846, 144 (*Gobiesox marmoratus* Jenyns).

3971. *Gobiesox nigripinnis* (Peters).
Puerto Cabello, near Aspinwall, Colon.
Cotylis nigripinnis Peters, Monatsber. Akad. Wiss. Berlin, 1859, 412,
Puerto Cabello, near Aspinwall, Colon.
3972. *Gobiesox macrophthalmus* Günther.
Probably West Indies.
Gobiesox macrophthalmus Gunther, Cat., III, 1861, 502, locality
unknown.
3973. *Gobiesox androsiensis* Rosen.
Bahamas
Gobiesox androsiensis Rosen, Arsskr. Univ. Lund., VII, 1912, 50,
Bahamas.
3974. *Gobiesox costaricensis* Meek.
Costa Rica.
Gobiesox costaricensis Meek, Field Mus. Nat. Hist., Zool., X, 1912, 74,
Zent, Costa Rica.
3975. *Gobiesox gyrimus* Jordan and Evermann.
West Indies.
Gobiesox gyrimus Jordan and Evermann, Fishes North and Mid Amer.,
1898, 2331, Cordova; name only in Check List, 1895, 491.
3976. *Gobiesox cephalus* Lacépède. *Têtard; Testar*.
West Indies.
Gobiesox cephalus Lacépède, Hist. Nat. Poiss., II, 1800, 595, Mar-
tinique.
Lepadogaster testar Bloch and Schneider, Syst. Ichth., 1801, 4, Mar-
tinique; after Plumier.
3977. *Gobiesox tudes* Richardson.
Probably West Indies.
Gobiesox tudes Richardson, Voy. *Sulphur*, Fishes, 1845, 103, pl. 46,
figs. 1-3; habitat unknown, erroneously supposed to be China.
3978. *Gobiesox strumosus* Cope.
Maryland to Florida.
Gobiesox strumosus Cope, Proc. Acad. Nat. Sci. Phila., XXII, 1870,
121, Hilton Head, S. C.
3979. *Gobiesox virgatulus* Jordan and Gilbert.
From Pensacola Bay north to Charleston, S. C.
Gobiesox virgatulus Jordan and Gilbert, Proc. U. S. Nat. Mus., V,
1882, 293, Pensacola, Fla.
3980. *Gobiesox adustus* Jordan and Gilbert.
Pacific coast of Mexico.
Gobiesox adustus Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881,
360, Mazatlan, Mexico.
3981. *Gobiesox funebris* Gilbert.
Gulf of California; Puerto Refugio (Angel Island) and La Paz.
Gobiesox funebris Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 95, Puerto
Refugio, Gulf of California.
3982. *Gobiesox rhodospilus* Günther.
Panama.
Gobiesox rhodospilus Günther, Proc. Zool. Soc. Lond., 1864, 25, Panama.
3983. *Gobiesox cerasinus* Cope.
St. Martins, West Indies.
? *Cyclopterus nudus* Linnæus, Syst. Nat., ed. X, 1758, 260, "India";
not identifiable.
Gobiesox cerasinus Cope, Trans. Amer. Phil. Soc., XIV, 1871, 473, St.
Martins, West Indies.
3984. *Gobiesox vittatus* Metzelaar.
Caribbean Sea.
Gobiesox vittatus Metzelaar, Marine Fish. Lesser Antilles, Bijdr.
Dierk., 1922, 140, with fig., Curaçao.

3985. *Gobiesox sancti-martini* Metzelaar.
West Indies.
Gobiesox sancti-martini Metzelaar, Trop. Atl. Vissch., 1919, 154, fig. 48, St. Martin's Island.
3986. *Gobiesox yuma* Nichols.
Coast of Florida.
Gobiesox yuma Nichols, Bull. Amer. Mus. Nat. Hist., XXXVII, Dec. 29, 1917, 876, fig. 1, south of Sanibel Light, Florida west coast.
- Genus 1425. *SICYASES* Müller and Troschel.
Sicyases Muller and Troschel, Wiegmann's Archiv, 1843, 298, *S. sanguineus*.
Tomacodon Brisout de Barneville, Rev. Zool., 1846, 144 (*T. chilensis* Barneville).
3987. *Sicyases erythroptus* (Jordan and Gilbert).
Mazatlan; also Tres Marias Islands.
Gobiesox erythroptus Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 360, Mazatlan, Mexico.
3988. *Sicyases rubiginosus* Poey.
Matanzas, Cuba
Sicyases rubiginosus Poey, Synop., 1868, 391, wharves of Palmasola, Matanzas, Cuba.
3989. *Sicyases carneus* Poey.
Matanzas, Cuba.
Sicyases carneus Poey, Synop., 1868, 392, wharves of Palmasola, Matanzas, Cuba.
3990. *Sicyases hæres* (Jordan and Bollman).
Green Turtle Cay, Bahamas.
Gobiesox hæres Jordan and Bollman, Proc. U. S. Nat. Mus., XI, 1888, 552, Green Turtle Cay, Bahamas.
3991. *Sicyases punctulatus* Poey.
Cuba.
Sicyases punctulatus Poey, Enumeratio, 1876, 124, Habana.
3992. *Sicyases fasciatus* Peters.
Puerto Cabello near Aspinwall.
Sicyases fasciatus Peters, Monatsber. Akad. Wiss. Berlin, 1859, 412, Puerto Cabello.
- Genus 1426. *RIMICOLA* Jordan and Evermann.
Rimicola Jordan and Evermann, Proc. Calif. Acad. Sci., 2d ser., VI, 1896, 231 (*Gobiesox muscarum* Meek and Pierson).
3993. *Rimicola eigenmanni* (Gilbert).
Point Loma, near San Diego, to Monterey Bay, Calif.
Gobiesox eigenmanni Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 96, Point Loma near San Diego, Calif.
Gobiesox muscarum Meek and Pierson, Proc. Calif. Acad. Sci., 2d ser., V, 1895, 571, pl. 71, Monterey Bay, Calif.
3994. *Rimicola beryllinus* (Hildebrand and Ginsberg).
Key West, Fla.
Gobiesox (Rimicola) beryllinus Hildebrand and Ginsberg, Bull. U. S. Bur. Fish., XLII, 1926, 213, fig. 5, Boca China, Key West, Fla.
- Genus 1427. *ARBACIOSA* Jordan and Evermann.
Arbaciosa Jordan and Everman, Proc. Calif. Acad. Sci., 2d ser., VI, 1896, 230 (*Gobiesox humeralis* Gilbert).
3995. *Abraciosa rhessodon* (Rosa Smith).
San Diego to the northern part of the Gulf of California.
Gobiesox rhessodon Rosa Smith (Mrs. Eigenmann), Proc. U. S. Nat. Mus., IV, 1881, 140, San Diego, Calif.
3996. *Abraciosa humeralis* (Gilbert).
Gulf of California; Puerto Refugio, Angel Island; La Paz.
Gobiesox humeralis Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 95, Puerto Refugio, Gulf of California.

3997. *Arbacia rupestris* (Poey).
Coral reefs of Cuba.
Gobiesox rupestris Poey, Memorias, II, 1861, 283, Cuba.
3998. *Arbacia zebra* (Jordan and Gilbert).
Mazatlan, Mexico.
Gobiesox zebra Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 359, Mazatlan, Mexico.
3999. *Arbacia eos* (Jordan and Gilbert).
Pacific coast of Mexico.
Gobiesox eos Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 360, Mazatlan, Mexico.

Order ZZ. PLECTOGNATHI

Suborder SCLERODERMI

Family 295. TRIACANTHIDÆ

- Genus 1428. *HOLLARDIA* Poey.
Hollardia Poey, Memorias, II, 1861, 348 (*H. hollardi* Poey).

4000. *Hollardia hollardi* Poey.
West Indies.
Hollardia hollardi Poey, Memorias, II, 1861, 348, pl. 18, fig. 11, Cuba

Family 296. BALISTIDÆ

- Genus 1429. *BALISTES* Linnæus.
Balistes Linnæus, Syst. Nat., ed. X, 1758, 327 (*B. vetula* Linnæus).
Capriscus Rafinesque, Indice, 1810, 41, 58 (*C. porcus* Rafinesque = *Balistes capriscus* Gmelin).

4001. *Balistes naufragium* Jordan and Starks. *Pez puerco de piedra*.
Mazatlan; Panama Bay.
Balistes naufragium Jordan and Starks, Proc. Calif. Acad. Sci., 2d ser., V, 1895, 488, Mazatlan.
4002. *Balistes capriscus* Gmelin. *Leatherjacket; Cucuyo; Turbot, Triggerfish; Filefish*.
Tropical parts of the Atlantic; Gulf Stream; Mediterranean.
Balistes carolinensis Gmelin, Syst. Nat., I, 1788, 1468, Carolinas.
Balistes capriscus Gmelin, loc. cit., 1789, 1471, Indian and American oceans; after Gronow (this name preferred by first reviewer).
Balistes bumwa Lacépède, Hist. Nat. Poiss., V, 1798, 669, pl. 21, fig. 1, Nice.
Balistes caprinus Valenciennes, Ichth. Îles Canaries, 1836, 94, pl. 16, Canaries.
Balistes fuliginosus DeKay, N. Y. Fauna: Fishes, 1842, 339, pl. 57, fig. 188, New York.
Balistes tænopterus Poey, Memorias, II, 1861, 326, Cuba.
4003. *Balistes vetula* Linnæus. *Oldwife; Old wench; Cochino; Blue-striped triggerfish; Bessy cerka*.
Tropical parts of the Atlantic; West Indies; Gulf Stream to Woods Hole.
Guaperva Marcgrave, Hist. Bras., 1648, 163, Brazil.
Balistes vetula Linnæus, Syst. Nat., Ed. X, 1758, 329, Ascension Island; after *Balistes vetula* of Osbeck, Iter Chinensis, 294, 1757.
Balistes bellus Walbaum, Artedi Pisc., III, 1792, 467, West Indies; after Krøyer.
Balistes equestris Gronow, Cat. Fishes, ed. Gray, 1854, 31, American seas.

4004. *Balistes forcipatus* Gmelin.

West coast of Africa to Rhode Island and Brazil.

Balistes forcipatus Gmelin, Syst Nat, I, 1789, 1472, Brazil; after *Guaperva lata* of Lista

Balistes punctatus Gmelin, loc. cit., 1472; after Stipvisch of Willoughby.

Balistes spilopterygius Walbaum, Artdi Pisc., III, 1792, 455, Brazil.

Balistes guttatus Walbaum, loc cit, 467, St. Vincent.

Balistes ciliaris Bloch and Schneider, Syst. Ichth., 1801, 471, Brazil.

Balistes liberiensis Steindachner Ichth. Notizen, IV, 1867, 9, Monrovia in Liberia.

?*Balistes powelli* Cope, Proc. Acad. Nat. Sci. Phila., XXII, 1870, 120, Newport, R. I.

Balistes moribundus Cope, Trans Amer. Phil. Soc., XIV, 1870, 478, St. Martins.

Genus 1430. SUFFLAMEN Jordan.

Pachynathus Swainson, Classn Fishes, II, 1839, 326 (*Balistes triangularis*=*Balistes capistratus* Shaw); not *Pachygnathus* nor *Pachygnathus*; both these names earlier used for genera of spiders, the name *Pachygnathus* regarded as a misprint and not valid according to decision of the International Commission of Nomenclature.

Sufflamen Jordan, Copeia, April 12, 1916, 27 (*Balistes capistratus* Shaw).

4005. *Sufflamen verres* (Gilbert and Starks). *Pez puerco*.

Pacific coast of tropical America, from Magdalena Bay to the Galapagos.

Balistes capistratus of authors; not of Shaw, Gen. Zool., V, 1804, 417; after *Balistes bridé* Lacépède, a species of the South Seas and East Indies.

Balistes verres Gilbert and Starks, Mem Calif Acad. Sci., V, 1904, 153, Pl. XXVI, fig 49, Panama and Mazatlan.

Genus 1431. VERRUNCULUS Jordan.

Verrunculus Jordan, Copeia, Sept, 1924, 82 (*Balistes polylepis* Steindachner).

4006. *Verrunculus polylepis* (Steindachner) *Pez puerco*.

San Diego to Panama; common southward.

Balistes polylepis Steindachner, Ichth. Beitr., V, 1876, 21, Magdalena Bay; Mazatlan; Acapulco.

Genus 1432. CANTHIDERMIS Swainson. *Sobacos*.

Canthidermis Swainson, Nat. Hist. Classn. Anim., II, 1839, 325, (*Balistes angulosus* Quoy and Gaimard).

4007. *Canthidermis angulosus* (Quoy and Gaimard).

Hawaii to Cocos Island; rare.

Balistes angulosus Quoy and Gaimard, Voy. Uranie, Zool., 1824, 210, Sandwich Islands (Hawaiian Islands).

4008. *Canthidermis sobaco* (Poey). *Sobaco*.

West Indies.

Balistes sobaco Poey, Memorias, II, 1861, 324, Habana.

Balistes asperimus Cope, Trans. Amer. Phil. Soc., XIV, 1870, 478, St. Martins.

4009. *Canthidermis sufflamen* (Mitchill). *Sobaco*.

West Indies; Habana.

Sobaco Parra, Dif. Piezas, Hist. Cuba, 1787, 17, fig. 10, Habana.

Balistes sufflamen Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 467, locality unknown, said by DeKay to be from the south Atlantic.

Balistes macrops Poey, Memorias, II, 1861, 326, Habana.

4010. *Canthidermis maculatus* (Bloch) *Ocean turbot*.
West Indies.
Balistes maculatus Bloch, Nat. Ausl. Fisch., II, 1786, 25, West Indies.
Balistes americanus Gmelin, Syst. Nat., I, 1789, 1473, America; after Gronow.
Balistes macropterus Walbaum, Arted. Pisc., III, 1792, 465, America.
Balistes rufus Gronow, Cat. Fishes, ed. Gray, 1854, 36, American oceans.
Balistes longus Gronow, loc. cit., 1854, American oceans.
Balistes melanopterus Cope, Trans. Amer. Phil. Soc., XIV, 1870, 478, Darien.
4011. *Canthidermis willughbeii* (Lay and Bennett).
Pacific coast of Mexico
Balistes willughbeii Lay and Bennett, Zoology Beechey's Voyage, 1839, 68, pl. 21, fig. 2, Acapulco, Mexico.
- Genus 1433. *XANTHICHTHYS* Kaup.
Xanthichthys Kaup, in Richardson, Enc. Brit., ed. XII, 1856, 313
Balistes curassavicus Gmelin).
4012. *Xanthichthys ringens* (Linnæus). *Cocuyo*.
West Indies and southward, recorded from Mauritius.
Balistes ringens Linnæus, Syst. Nat., Ed. X, 1758, 329, no locality.
Cucuyo Parra, Dif. Piezas, etc., Cuba, 1787, 19, Habana, after Linnæus.
Balistes curassavicus Gmelin, Syst. Nat., I, 1788, 1472, Curaçao.
Balistes notatus Gronow, Cat. Fishes, ed. Gray, 1854, 36, both Indies.
Balistes nitidus Gronow, loc. cit., 36, American oceans.
Balistes cicatricosus Poey, Memorias, II, 1861, 327, Cuba.
Balistes heckelii von Müller, Reisen in Vereinigten Staaten, Canada und Mexico, I, 1864, 182, Mexico.
4013. *Xanthichthys lineopunctatus* (Hollard).
Panama; Pacific coast of Mexico to East Indies, taken at San Diego.
Balistes lineopunctatus Hollard, Ann. Sci. Nat., ser. 4, I, 1854, 65, Bourbon Island.
Balistes mento Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 228
Clarion Island of the Revillagigedo group.
- Genus 1434. *MELICHTHYS* Swainson.
Melichthys Swainson, Class. Anim., II, 1839, 325 (*Balistes ringens* Bloch = *Balistes buniva* Lacépède).
4014. *Melichthys piceus* (Poey). *Galafate*; *Black oldwife*; *Calafate*.
West Indies and southward.
? *Balistes nigra* Osbeck, Iter Chinensis, 1757, 295, Ascension Island; pre-Linnæan.
Galafate Parra, Dif. Piezas, etc., 1787, 18, Habana.
Balistes piceus Poey, Proc. Acad. Nat. Sci. Phila., XV, 1863, 180, Cuba.
4015. *Melichthys radula* (Solander).
East Indies, Clarion and Socorro Islands; Cocos Island.
Balistes radula Solander, in Richardson, Voy. H. M. S. *Samarang*, Fishes, 1848, 21.
Melichthys dispinosus Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 125, Clarion and Socorro Islands of the Revillagigedo group.

Family 297. *MONACANTHIDÆ*. FilefishesGenus 1435. *CANTHERINES* Swainson.

- Cantherines* Swainson, Classn. Fishes, II, 1839, 327 (*Cantherines nasutus* Swainson = *Balistes sandwichensis* Quoy and Gaimard).
Pseudomonacanthus Bleeker, loc. cit., 12 (*Monacanthus macrurus* Bleeker).
Liomonacanthus Bleeker, Ned. Tijdskr., III, 1866, 13 (*Monacanthus pardalis* Rüppell).

- 4016. *Cantherines pullus* (Ranzani). *Liza colorado*.**
 West Indies and coast of Brazil; southern Florida.
Liza colorado Parra, Dif. Piezas, etc., 1787, pl. 23, p. 49, Cuba.
Monacanthus pullus Ranzani, Nov. Comm. Act. Sci. Inst. Bonon., V, 1842, 4, pl. 1, Brazil.
Monacanthus macrocerus Holland, Ann Sci. Nat., II, 1854, 327, pl. 12, fig. 1, Bahia.
Monacanthus ruppelii Castelnau, Anim. Nouv. Amer. Sud., Poiss., 1855, 97, pl. 47, fig. 2, Bahia.
Monacanthus irroratus Poey, Memorias, II, 1861, 330, Cuba.
Monacanthus striatus Poey, loc. cit., 329, Cuba.
Monacanthus parraianus Poey, Proc. Acad. Nat. Sci. Phila., XV, 1863, 185, Cuba; after Parra.
Monacanthus punctatus Poey, Synopsis, 1868, 437, Cuba.
- 4017. *Cantherines carolæ* (Jordan and McGregor).**
 Islands off the Pacific coast of Mexico; Revillagigedo Islands.
 ?*Balistes sandwichensis* Quoy and Gaimard, Voy. l'*Uranie*, Zool., 1824, 214, Sandwich [Hawaiian] Islands.
 ?*Cantherines nasutus* Swainson, Nat. Hist. Class. Fishes, II, 1839, 327; substitute for *B. sandwichensis*.
Cantherines carolæ Jordan and McGregor, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 1713 (Clarion Island by error), Socorro Island.
- 4018. *Cantherines amphioxys* (Cope).**
 St. Martins Island, West Indies.
Monacanthus amphioxys Cope, Trans. Amer. Phil. Soc., XIV, 1870, 477, St. Martins Island.
- Subgenus **MONACANTHUS.**
- Genus 1436. MONACANTHUS Cuvier.**
Monacanthus Cuvier, Règne Anim., Ed. I, 1817, 152 (*Balistes chinensis* Bloch).
Trichoderma Swainson, Nat. Hist. Fish., Amphib., etc., II, 1839, 328 (*Balistes scapus* Lacépède).
Stephanolepis Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 78 (*Monacanthus setifer* Bennett).
- 4019. *Monacanthus ciliatus* (Mitchill). *Leatherfish*; *Liza*; *Flapmango*.**
 West Indies and Florida; Florida Keys.
Balistes ciliatus Mitchill, Amer. Month. Mag. and Crit. Rev., II, March, 1818, 326, Bahama Straits.
Monacanthus piraaca Kner, Reise Fregatte *Novara* um Erde, Zool., Fische, 1867, 396, Rio Janeiro.
Monacanthus occidentalis Günther, Cat., VIII, 1870, 237, Puerto Caballo.
Monacanthus davidsonii Cope, Trans. Amer. Phil. Soc. Phila., XIV, 1870 (1871), 476, Florida Reef.
- Subgenus **STEPHANOLEPIS Gill.**
- 4020. *Monacanthus hispidus* (Linnæus). *Foolfish*; *Filefish*; *Leatherfish*; *Horny cony*; *Liza*; *Thread filefish*; *Mingo*.**
 Cape Cod to Cuba; south Atlantic coast and Florida Keys; West Indies to Brazil.
Balistes hispidus Linnæus, Syst. Nat., Ed. XII, 1766, 405, Carolinas.
Balistes broccus Mitchill, Trans. Lit. Phil. Soc., I, 1815, 467, New York.
Monacanthus filamentosus Valenciennes, Îles Canaries Ichth. Atl., 1836, 95, pl. 16, fig. 1, Canaries.
Monacanthus gallinula Valenciennes, loc. cit., 95, Canaries.
Monacanthus varius Ranzani, Novi Comment. Ac. Sci. Inst. Bonon., V, 1842, 6, Pl. II, Brazil.
Monacanthus massachusettsensis DeKay, N. Y. Fauna: Fishes, 1842, 336, pl. 57, fig. 187, Massachusetts Bay.
Monacanthus setifer DeKay, loc. cit., 337, pl. 59, fig. 194, New York.
Monacanthus signifer Storer, Synop. Fish. N. Amer., 1846, 497, Massachusetts.
Monacanthus auriga Lowe, Proc. Zool. Soc. Lond., 1850, 253, Madeira.

4021. *Monacanthus oppositus* Poey.

Cuba.

Monacanthus oppositus Poey, *Memorias*, II, 1861, 331, Habana.**4022. *Monacanthus spilonotus* Cope.**

Gulf of Mexico.

Monacanthus spilonotus Cope, *Trans. Amer. Phil. Soc. Phila.*, XIV, 1870, 476, Gulf of Mexico.**4023. *Monacanthus tuckeri* Bean.**

West Indies, north to Bermudas.

Monacanthus tuckeri Bean, *Field Mus. Nat. Hist., Zool.*, VII, 1906, 78, fig. 11, Bermudas.**Genus 1437. *CERATACANTHUS* Gill.***Ceratacanthus* Gill, *Fish. E. Coast N. Amer.*, *Proc. Acad. Nat. Sci. Phila.*, XIII, 1861, 57 (*Balistes aurantiacus* Mitchill = *Balistes schæpfi* Walbaum).**4024. *Ceratacanthus schæpfi* (Walbaum). *Filefish; Orange filefish; Laja; Foolfish; Unicornfish; Sunfish.***

Cape Cod to the Carolinas and Florida.

Balistes schæpfi Walbaum, *Artedi Pisc.*, 1792, 461, Long Island; after Schopf, *Berlin Ges. Naturf.*, VIII, 1788, 186.*Balistes aurantiacus* Mitchill, *Trans. Lit. Phil. Soc. N. Y.*, I, 1815, 468, New York.*Aluterus cuspicauda* DeKay, *New York Fauna: Fishes*, 1842, 338, New York.*Aluterus holbrooki* Hollard, *Ann. Sci. Nat.*, IV, 1855, 7, North America.*Aluterus cultrifrons* Hollard, *Ann. Sci. Nat.*, ser. 4, IV, 1855, 8, pl. 1, fig. 2, New York and Bahia.**Genus 1438. *DAVIDIA* Miranda Ribeiro.***Davidia* Miranda Ribeiro, *Archiv Mus. Nac. Rio Janeiro*, XVII, 1915, 9 (*Alutera punctata* Agassiz).**4025. *Davidia punctata* (Agassiz). *Long mingo.***

Jamaica to Bahia.

Alutera punctata Agassiz, *Pisc. Brasil.*, 1829, 134, pl. 76, Brazil.**Genus 1439. *OSBECKIA* Jordan and Evermann.***Osbeckia* Jordan and Evermann, *Check List*, 1895, 424 (*Balistes scripta* Osbeck).**4026. *Osbeckia scripta*¹ (Osbeck). *Unicornfish; Lija trompa; Olilepa; Ohua.***

Tropical seas; West Indies; North Carolina; off west coast of Mexico; Clarion Island, Revillagigedo Islands.

Balistes scriptus Osbeck, *Iter Chinensis*, I, 1757, 144, Canaries.*Unicornis piscis bahamensis* Catesby, *Nat. Hist. Carolina*, etc., II, 1743, 19, pl. 19, Bahamas.*Balistes laevis* Bloch, *Naturgesch. Ausl. Fische*, IV, 1795, 82, pl. 414, Morocco.*Monacanthum proboscideum* Ranzani, *Nov. Comm. Ac. Sc. Inst. Bonon.*, V, 1842, 8, Brazil.*Aluterus venosus* Hollard, *Ann. Sc. Nat.*, ser. 4, IV, 1855, 14, pl. 1, fig. 3, New Ireland.*Alutera picturata* Poey, *Proc. Acad. Nat. Sci. Phila.*, XV, 1863, 183, Cuba.**Genus 1440. *ALUTERA* Cuvier.***Les Alutères* Cuvier, *Règne Anim.*, ed. 1, 1817, 153 (*Balistes monoceros* Osbeck).*Alutera* Oken, *Isis*, 1817, 153 ("Les Alutères" Cuvier; *Balistes monoceros* Linnæus).

¹ Whether *Osbeckia venosa* Hollard, East Indies to Hawaii and the Revillagigedos, is distinct from *O. scripta* of the Atlantic is a matter not yet determined. The distinction of *Osbeckia* and *Ceratacanthus* from *Alutera* is questionable.

4027. *Alutera monoceros*⁹² Linnæus. *Laja barbuda*; *Loulu*.
Pacific Ocean; East Indies; Japan; Hawaii.
Capriscus minima etc, Klein, *Miasus*, II, 1742, 25 (no locality; figure very bad).
Balistes monoceros Osbeck, *Iter Chinensis*, 1757, 110, Asia, Linnæus, *Syst. Nat.*, ed. X, 1758, 327, Asia and America.
Laja barbuda Parra, *Dif. Piezas Hist. Nat.*, 1787, 48, pl. 22, fig. 2, Habana.
Balistes kleini Gmelin, *Syst. Nat.*, 1788, 1472, Indian seas; after Klein.
Balistes barbatus Walbaum, *Artedi Pisc.*, III, 1792, 464; after Klein.
Balistes monoceros unicolor Bloch and Schneider, *Syst. Ichth.*, 1801, 463, after Gmelin.
Aluteres berardi Lesson, *Voy. Coquille*, Zool., 1830, 108, pl. 7, New Guinea.
Alutera cinerea Temminck and Schlegel, *Fauna Japon.*, Poiss., 1850, 292, pl. 131, fig. 1, Japan.
Alutarius macracanthus Bleeker, *Verh. Bat. Gen.*, Balistini, XXIV, Art. 11, 1852, 22, pl. 3, fig. 7, East Indies.
Alutarius amphacanthoides Bleeker, loc. cit., 23, pl. 2, fig. 5, East Indies.
Alutarius obliteratus Cantor, *Malayan Fishes*, 1850, 352, Pinang.
Balistes linguatula Gronow, *Cat.*, ed. Gray, 1854, 35, Indian seas.
Aluterus anginosus Hollard, *Ann. Sci. Nat.*, IV, 1855, 11, East Indies.
Balistes uncornu Basilewsky, *Nouv. Mém. Soc. Nat. Moscow*, X, 1855, 263, China.
4028. *Alutera guntheriana* Poey. *Liza barbuda*.
West Indies; once taken at Woods Hole (1898).
Alutera guntheriana Poey, *Proc. Acad. Nat. Sci. Phila.*, XV, 1863, 184, Habana.

Suborder OSTRACODERMI

Family 298. OSTRACIIDÆ. Trunkfishes

- Genus 1441. OSTRACION Linnæus.
Ostracion Linnæus, *Syst. Nat.*, Ed. X, 1758, 330 (*O. cubicus* Linnæus).
Cibotus Kaup, *Wiegmann's Archiv*, XXI, 1855, 215 (*Ostracion cubicus* Linnæus).
Ostracium of authors; improved orthography.
4029. *Ostracion punctatum* Bloch and Schneider.
Tropical Pacific in general; Clipperton Island, Galapagos Islands, Hawaiian Islands.
Ostracion lentiginosum Bloch and Schneider, *Syst. Ichth.*, 1801, 501, Ile de France.
Ostracion punctatus Bloch and Schneider, loc. cit., 501, Honolulu.
4030. *Ostracion clippertonense* Snodgrass and Heller.
Clipperton Island.
Ostracion clippertonense Snodgrass and Heller, *Shore Fishes*, Galapagos Islands, in *Proc. Wash. Acad. Sci.*, VI, 1904, 410, Clipperton Island.
- Genus 1442. RHINESOMUS Swainson.
Rhinesomus Swainson, *Nat. Hist. Classn. Fishes*, II, 1839, 194, 324 (*Ostracion triqueter* Linnæus)
4031. *Rhinesomus triqueter* (Linnæus). *Trunkfish*; *Rock shellfish*; *Drunkenfish*; *Chapin*; *Platefish*.
West Indies, north to the Bermudas; Key West and Pensacola; Woods Hole, Mass.
Ostracion triqueter Linnæus, *Syst. Nat.* Ed. X, 1758, 330, "India."
Ostracion concatenatus Bloch, *Naturgesch. Ausl. Fische*, I, 1785, 101, Martinique.
- Genus 1443. CHAPINUS Jordan and Evermann.
Chapinus Jordan and Evermann, *Check List*, 1895, 424 (*Ostracion bicaudalis* Linnæus).

⁹² Whether the West Indian *Alutera guntheriana* is distinguishable from *Alutera monoceros* of the Pacific is uncertain.

- 4032. *Chapinus bicaudalis* (Linnæus).** *Chapin; Spotted trunkfish; Pesce toro; Bullfish.*
West Indies, from Cuba to Ascension Island; Tortugas.
Ostracion bicaudalis Linnæus, Syst. Nat., Ed. X, 1758, 330, "India"; after Artedi.
- Genus 1444. LACTOPHRYS Swainson.** *Three-angled trunkfishes.*
Lactophrys Swainson, Nat. Hist. Classn. Fishes, II, 1839, 194, 324 (*Ostracion trigonus* Linnæus, etc.).
- 4033. *Lactophrys trigonus* (Linnæus).** *Common trunkfish; Chapin; Shellfish; Cuckold; Boxfish.*
West Indies, north to Bermuda and Key West; occasionally northward in Gulf Stream to Holmes Hole, Mass., and Chesapeake Bay.
Ostracion trigonus Linnæus, Syst. Nat., Ed. X, 1758, 330, India.
Ostracion yalei Storer, Bost. Jour. Nat. Hist., I, 1836, 353, Holmes Hole and Marthas Vineyard.
Ostracion undulatus Poey, Synopsis, 1868, 441, Habana.
Ostracium expansum Cope, Trans. Amer. Phil. Soc., XIV, 1870, 474, figs. 9-10, locality unknown.
- Genus 1445. ACANTHOSTRACION Bleeker.**
Acanthostracion Bleeker, Atlas Ichth., V, 1865, 27, (*Ostracion quadricornis* Linnæus = *Ostracion tricornis* Linnæus).
- 4034. *Acanthostracion quadricornis* (Linnæus).** *Cuckold, Toro; Cowfish; Horned trunkfish.*
Tropical seas; common from Carolina to Brazil; Marquesas Islands; Florida Keys; occasionally at Pensacola and Galveston and north in the Gulf Stream to Charleston and Chesapeake Bay.
Ostracion tricornis Linnæus, Syst. Nat., Ed. X, 1758, 331, "India"; after Artedi.
Ostracion quadricornis Linnæus, loc. cit., 331, "India"; after Artedi; (this name preferred to the preceding by the first reviser).
Ostracion lyster Lacépède, Hist. Nat. Poiss., I, 1798, 468; after Willoughby.
Ostracion sexcornutus Mitchill, Amer. Month. Mag., II, 1818, 328, mouth of Mississippi River.
Ostracion guineensis Bleeker, Ned Tydskr. Dierk., II, 1865?, 298, Guinea.
Ostracion gronovi Bleeker, loc. cit., II, 298, Guinea.
Acanthostracion polygonius Poey, Enumeratio, 1876, 175, Cuba.

Suborder GYMNOTODONTES

Family 299. TETRAODONTIDÆ. Puffers

- Genus 1446. LAGOCEPHALUS**⁹³ Swainson.
Lagocephalus Swainson, Nat. Hist. Classn. Fishes, II, 1839, 194, 328 (*Tetraodon stellatus* Donovan).
- 4035. *Lagocephalus lævigatus* (Linnæus).** *Smooth puffer; Rabbitfish; Smooth swellfish; Tambor.*
Cape Cod to Brazil; rare north of Cape Hatteras.
Tetrodon lævigatus Linnæus, Syst. Nat., Ed. XII, 1766, 411, Charleston, S. C.
Tetrodon curvus Mitchill, Trans. Lit. Phil. Soc., I, 1815, 472, New York.
Tetrodon mathematicus Mitchill, loc. cit., I, 1815, 474, New York.
Holocanthus melanothos Gronow, Syst. Nat., ed. Gray, 1854, 24, Carolinas.
Tetrodon lineolatus Poey, Synopsis, 1868, 432, Cuba.
- 4036. *Lagocephalus pachycephalus* (Ranzani).** *Jugfish.*
Jamaica to Brazil.
Tetrodon pachycephalus Ranzani, Nov. Comm. Ac. Sci. Inst. Bonon., IV, 1840, 73, Pl. X, fig. 2, Brazil.

⁹³ The American species of *Lagocephalus* are very well separated from *Sphaeroides* but various Japanese species of the former genus grade off into the latter.

Genus 1447. SPHÆROIDES Lacépède. *Swellfishes*.

- Les *Sphéroides* Lacépède, Hist. Nat. Poiss., II, 1798, 22, Pl. I, fig. 1
(*La Sphéroïde tuberculée*, a front view of *Tetraodon spengleri* Bloch).
Sphæroides, Allegem. Lit. Zeit. Berlin, Sept. 24, 1798, unsigned review,
adopts this spelling as a technical name for the genus.
Sphæroides Duméril, Zool. Anal., 1806, 342; after Lacépède.
Orbidus Rafinesque, Analyse de la Nature, 1815, 90 (substitute for Les
Sphéroides Lacépède).
Crayracion Klein, Gesellschaft Schauplatz, IV, 1777, 788 (*Tetraodon*
spengleri Bloch; not binomial); after Klein, 1742.
Holocanthus Gronow, Cat. Fish., 1854 (*H. leionothus* Gronow).
Anchisomus (Kaup) Richardson, Zool. H. M. S. Herald, 1854, 156
(*Tetraodon spengleri* Bloch).
Crayracion Bleeker, Atlas Ichth., 1865, 65 (*Tetraodon spengleri* Bloch).
Stenometopus Bibron, Rev. Mag. Zool., VIII, 1855, 279 (*Tetraodon*
téstudineus Linneus).
- 4037. *Sphæroides maculatus* (Bloch and Schneider). *Puffer; Swelltoad; Blower; Swellbelly; Swellfish; Toadfish*.**
Atlantic coast of the United States from Cape Ann to St. Johns River
and Biscayne Bay, Fla.
Tetraodon hispidus var. *maculatus* Bloch and Schneider, Syst. Ichth.,
1801, 504, Rhode Island; after Schopf.
Tetraodon turgidus Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 473,
pl. 5, fig. 5, New York.
- 4038. *Sphæroides spengleri* (Bloch). *Southern puffer; Swelltoad; Tambor*.**
West Indies; coasts of Texas and Florida, south to Rio Janeiro and to
the Madeiras and Canaries; rarely north to Woods Hole.
Tetraodon spengleri Bloch, Ichth., I, 1782, 135, pl. 144, East Indies.
Le *Tetraodon* Plumier Hist. Nat. Poiss., I, 1797, 504, Martinique.
Le *Sphéroïde tuberculé* Lacépède, Hist. Nat. Poiss., II, 1798, 22, Mar-
tinique.
Sphæroides tuberculatus Pillot edition of Lacépède, VI, 1831, 279,
Martinique.
- 4039. *Sphæroides nephelus* (Goode and Bean). *Puffer; Swellingfish*.**
Florida.
Tetraodon nephelus Goode and Bean, Proc. U. S. Nat. Mus., V, 1882,
412, Indian River and Pensacola, Fla.
- 4040. *Sphæroides marmoratus* (Ranzani). *Spinyback blowfish; Swellfish*.**
West Indies to Brazil; Jamaica.
Tetraodon marmoratus Ranzani, Nov. Comm. Ac. Sci. Inst. Bonon.,
IV, 1840, 72, pl. 10, fig. 1, Brazil.
- 4041. *Sphæroides harperi* Nichols.**
West Indies (St. Eustatius) north to Florida.
Sphæroides harperi Nichols, Bull. Am. Mus. Nat. Hist., XXXIII,
1914, 81, Cape Sable, Fla.
- 4042. *Sphæroides asterias* (Blosser).**
St. Croix.
Sphæroides asterias Blosser, Ann. Carnegie Mus., VI, 300, 1909, St.
Croix.
- 4043. *Sphæroides eulepidotus* (Metzelaar).**
Caribbean Sea.
Tetraodon (Sphæroides) eulepidotus Metzelaar, Trop. Atl. Visschen, 1919,
170, Curaçao.
- 4044. *Sphæroides lobatus* (Steindachner). *Botete*.**
Gulf of California to Galapagos Islands; Mazatlan; Panama.
Canthogaster? lobatus Steindachner, Ichth. Notizen, X, 1870, 18, pl. 5,
fig. 3, Altata.
- 4045. *Sphæroides angusticeps* (Jenyns).**
Pacific coast Lower California (La Paz), to the Galapagos Islands.
Tetraodon angusticeps Jenyns, Voyage Beagle, Fishes, 1842, 154, 28,
Galapagos Islands.

Genus 1448. CHEILICHTHYS Müller.

Cheilichthys Müller, Abhandl. Akad. Wiss. Berl., 1839, 252 (*Tetraodon testudineus* Linnæus).

Apsicephalus Hollard, Ann. Sci. Nat., Zool., VIII, 1857, 275 (*Tetraodon fluviatilis* Hamilton).

4046. *Cheilichthys testudineus* (Linnæus). Tambor; Glovefish; Blowfish; Swellfish; Puffer.

West Indies; Gulf Stream, occasionally to Newport, R. I.

Orbus lævis variegatus Catesby, Nat. Hist. Carolinas, II, 1743, 28, pl. 28, Virginia.

Tetraodon testudineus Linnæus, Syst. Nat., Ed. X, 1758, 332, India; based on Balk and Artedi.

?*Tetraodon punctatus* Bloch and Schneider, Syst. Ichth., 1801, 506, Brazil.

Tetraodon geometricus Bloch and Schneider, loc. cit., 508, Virginia; after Catesby.

Tetraodon ammocryptus Gosse, Nat. Sojourn Jamaica, 1851, 287, Jamaica.

Holocanthus leionothos Gronow, Cat. Fishes, ed. Gray, 1854, 24, American oceans.

4047. *Cheilichthys annulatus* (Jenyns).

Pacific coast of tropical America; Galapagos Islands.

Tetraodon annulatus Jenyns, Zool. Beagle, 1842, 153, Galapagos Islands.

Anchisomus geometricus (Kaup) Richardson, Voyage Herald, 1854, 156, pl. 30, Galapagos Islands.

Tetraodon heraldi Gunther, Cat., VIII, 1870, 283, Galapagos Islands and Panama.

4048. *Cheilichthys politus* (Girard).

Pacific coast of tropical America, San Diego to Mazatlan.

Tetraodon politus Girard, Pacific R. R. Surv., X, 1858, 340, San Diego, Calif.

4049. *Cheilichthys fürthi* (Steindachner).

Panama.

Tetraodon furthii Steindachner, Ichth. Beitr., V, 1876, 22, Panama.

4050. *Cheilichthys trichocephalus* (Cope) Harry blowfish.

Gulf Stream off Newport, R. I.; only the type known.

Tetraodon trichocephalus Cope, Proc. Acad. Nat. Sci. Phila., XXII, 1870, 120, Gulf Stream off Newport, R. I.

4051. *Cheilichthys pachygaster* (Müller and Troschel).

Barbados.

Tetraodon (Cheilichthys) pachygaster Müller and Troschel, in Schomburgk's Hist. Barbados, 1848, 677, Barbados.

Genus 1449. TETRAODON Linnæus.

Tetraodon Linnæus, Syst. Nat., Ed. X, 1758, 333 (*T. lineatus* Linnæus).

Les Ovoides Lacépède, Hist. Nat. Poiss., I, 1797, 256 (fascé, face view).

Ovoides Cuvier, Leçons Anat. Comp., I, 1800, tab. 1 (*Ovoides fasciatus* Lacépède = *Tetraodon stellatus* Linnæus).

Ovum Bloch and Schneider, Syst. Ichth., 1801, 530 (*O. commersoni* Bloch and Schneider = "l'Ovoide Fascé" Lacépède, 1797); preoccupied in mollusks.

Oonidus Rafinesque, Anal. Nat., 1815, 90, for "les Ovoides" of Lacépède.

Arothron Müller, Abh. Akad. Wies. Berlin, 1839, 252 (*A. testudinatus* Müller = *Tetraodon reticularis* Bloch and Schneider).

Dilobomycter Bibron, Rev. Mag. Zool., VIII, 1855, 279 (*Tetraodon reticularis* Bloch and Schneider).

Dichotomycter Bibron, loc. cit., 279 (*Tetraodon pluviatilis* Hamilton).

4052. *Tetraodon hispidus* Linnæus *Maki-maki*; *Kete*.
Panama and neighboring islands; Hawaii; Samoa; to China and the Red Sea.
Tetraodon hispidus Linnæus, Syst. Nat., Ed. X, 1758, 333, India.
Tetraodon perspicillaris Ruppell, Atlas, Reise Nord Africa, 1828, 63, Red Sea.
Tetrodon implutus Jenyns, Voy. *Beagle*, Fish., 1842, 152, Keeling Island.
Tetrodon latera Richardson, Voy. *Sulphur*, Zool., 1844, 124, pl. 61, fig. 2, Canton, China.
*Arothron erethizon*⁹⁴ Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 631, Panama.

Subgenus *OVIDES* Cuvier.

4053. *Tetraodon setosus* Smith.
West coast of Mexico; Revillagigedo, Clipperton, Cocos, and Galapagos Islands.
Tetraodon setosus Smith, Bull. Calif. Acad. Sci., 2d ser., VI, Nov. 13, 1886, Mexico.

Genus 1450. *GUENTHERIDIA* Gilbert and Starks.

Guentheridia Gilbert and Starks, Mem. Calif. Acad. Sci., IV, 1904, 158 (*Tetrodon formosus* Günther).

4054. *Guentheridia formosa* (Günther).

Panama.

Tetrodon formosus Günther, Cat., VIII, 1870, 233, "South America."

Genus 1451. *COLOMESUS* Gill.

Colomesus Gill, Proc. U. S. Nat. Mus., VII, 1884, 422 (*Tetrodon psittacus* Bloch and Schneider)

4055. *Colomesus psittacus* (Bloch and Schneider).

River mouths, Guiana and northern Brazil; Rio Branco, Essequibo, Marañon, and Capin at Para; West Indies in fresh waters only.

Tetrodon psittacus Bloch and Schneider, Syst. Ichth., 1801, 505, "Malabar."

Cheilichthys asellus Muller and Troschel, in Schomburgk, British Guiana, III, 1848, 641, Guiana.

Family 300. *CANTHIGASTERIDÆ*. Sharp-nosed puffers

Genus 1452. *CANTHIGASTER* Swainson.

Canthigaster Swainson, Nat. Hist. Fish., Amphib., etc., II, 1835, 194 (*Tetraodon rostratus* Bloch, called *Psilonotus* later in the text).

Psilonotus Swainson, loc. cit., 1835, 328, same type.

Prilonotus (Kaup) Muller, Richardson, Voyage *Herald*, 1854, 162 (*Tetrodon rostratus* Bloch).

Tropidichthys Bleeker, Nat. Tijdschr. Neder-Indie, VI, 501 (*T. margaritatus* Bleeker).

Anosmius Peters, Monatsber. Akad. Wiss. Berlin, XXI, 1855, 274 (*T. tæniatus* Peters).

Eumycteris Jenkins, Bull. U. S. Fish Com., XIX, 1899, 399 (*E. bitæniatus* Jenkins).

4056. *Canthigaster rostratus* (Bloch).

West Indian fauna; Pensacola; Madeiras and Bermudas.

Tetrodon rostratus Bloch, Ichth., I, 1782, pl. 146, India.

Tetrodon capistratus Lowe, Proc. Zool. Soc. Lond., 1839, 90, Madeira.

Prilonotus (*Anchisomus*) *caudacinctus* Richardson, Voyage *Herald*, 1854, 162, pl. 30, figs 1-3, locality unknown.

Tetrodon ornatus Poey, Synopsis, 1868, 433, Cuba.

4057. *Canthigaster punctatissimus* (Günther).

Pacific coast of America, Gulf of California to Panama.

Tetrodon punctatissimus Günther, Cat., VIII, 1870, 302, Panama.

Tetrodon oxyrhynchus Lockington, Proc. Acad. Nat. Sci. Phila., XXXIII, 1881, 116, Gulf of California

⁹⁴ This American form shows no distinction from the widespread *Tetraodon hispidus*.

Family 301. DIODONTIDÆ

Genus 1453. DIODON Linnæus. *Porcupinefishes*.

Diodon Linnæus, Syst. Nat., Ed. X, 1758, 335 (*D. hystrix* Linnæus).

Paradiodon Bleeker, Neder. Tijdschr. Dierk., II, 1865, 271 (*Diodon hystrix* Linnæus).

4058. *Diodon hystrix* Linnæus. *Porcupinefish*; *Erizo*; *Puerco espino*; *Soursap*. Tropical seas, north to Lower California, Hawaii, and Florida.
Diodon hystrix Linnæus, Syst. Nat., Ed. X, 1758, 335, India; after Artedi.

Guamajacu guara Marcgrave, Hist. Nat. Bras., 1648, 159, Brazil.

Erizo Parra, Desc. Dif. Piezas Hist. Nat. Cuba, 1787, 60, pl. 29, fig. 1, Habana.

Le Diodon plumier Lacépède, Hist. Nat. Poiss., II, 1798, 1, pl. 3, fig. 3, Martinique.

Diodon brachiatus Bloch and Schneider, Syst. Ichth., 1801, 513, Cuba.

Diodon punctatus Cuvier, Mém. du Mus. d'Hist. Nat., IV, 1818, 132, no locality.

Diodon echinus Rafinesque, in Bonaparte, Cat. Met. Pisc. Eur., 1846, 87, Mediterranean Sea.

4059. *Diodon holacanthus* Linnæus. *Balloonfish*

All warm seas; north to Florida Keys, Lower California, and Hawaiian Islands.

Diodon holacanthus Linnæus, Syst. Nat., ed. X, 1758, 335, India; based on Artedi (misprint).

Erizo guanabana Parra, Desc. Dif. Piezas Hist. Nat. Cuba, 1787, 62, pl. 29, fig. 2, Habana.

Le Diodon tacheé Lacépède, Hist. Nat. Poiss., II, 1798, 13, New Cytherea.

Diodon liturosus Shaw, Gen. Zool., V, 1804, 436; after Lacépède.

Diodon spinosissimus Cuvier, Mém. Mus. Hist. Nat., IV, 1818, 134, pl. 7, no locality.

Diodon novem-maculatus Cuvier, loc. cit., 136, pl. 6, no locality.

Diodon sex-maculatus Cuvier, loc. cit., 136, pl. 7, no locality.

Diodon multimaculatus Cuvier, loc. cit., 137, no locality.

Diodon 4-maculatus Cuvier, loc. cit., 137, pl. 6, Otaïti.

Diodon maculatus var. a, Gunther, Cat., VIII, 1870, 307, St. Croix; Jamaica; Panama; South America, etc.; after Lacépède.

Diodon melanopsis Kaup, Wiegmann's Archiv, 1855, 228.

4060. *Diodon maculifer* Kaup.

Cape of Good Hope; recorded doubtfully from Cuba.

Diodon maculifer Kaup, Wiegmann's Archiv, 1855, 229, Cape of Good Hope.

Genus 1454. TRICHODIODON Bleeker.

Trichodiodon Bleeker, Atlas Ichth., Gymnodontes, V, 1867, 49 (*Diodon pilosus* Mitchell).

Trichocyclus Günther, Cat., VIII, 316 (*T. erinaceus* Günther).

4061. *Trichodiodon pilosus* (Mitchell). *Balloonfish*; *Hairy porcupinefish*; *Hairy boxfish*.

New York.

Diodon pilosus Mitchell, Trans. Lit. Phil. Soc. N. Y., I, 1815, 471; supposed to be from New York Harbor.

Diodon asper Cuvier, Mém. Mus. Hist. Nat., IV, 1818, 138; no locality.

?*Trichocyclus erinaceus* Günther, Cat., VII, 1870, 316; no locality.

Genus 1455. CYCLICHTHYS Kaup. *Swelltoads*.

Cychchthys Kaup, Wiegmann's Archiv, XXI, 1855, 231 (*Diodon orbiculatus* Bloch).

4062. *Cyclichthys schœpfi* (Walbaum). *Burrfish; Cucumberfish; Spotted balloonfish; Balloonfish; Rabbitfish; Swelltoad; Spiny boxfish.*
Cape Cod to West Indies and occasionally northward to Woods Hole, Mass.
Diodon schœpfi Walbaum, Artedi Pisc., 1792, 601, Long Island; after Schöpf.
? *Diodon meulenii* Walbaum, loc. cit., 602; no locality.
Diodon geometricus lineatus Bloch and Schneider, Syst. Ichth., 1801, 513, New York.
Diodon maculato striatus Mitchell, Fish. N. Y., 470, pl. 56, fig. 3, 814, New York.
Diodon rivulatus Cuvier, Mém. Mus. Hist. Nat., IV, 1818, 129, pl. 6, New York.
Diodon nigrolineatus Ayres, Proc. Bost. Soc. Nat. Hist., I, 1842, 68, Brookhaven, Long Island.
Diodon verrucosus DeKay, N. Y. Fauna: Fishes, 324, 1842, pl. 56, fig. 184, New York.
4063. *Cyclichthys spinosus* (Linnæus).
West Indies and coast of Brazil.
Guamancu atinga Marcgrave, Hist. Brasil., 1648, 168, Brazil.
Diodon spinosus Linnæus, Syst. Nat., Ed. X, 1758, 335, India.
Le Diodon orbe Lacépède, Hist. Nat. Poiss., II, 1798, 16, Rio Janeiro.
Diodon geometricus Bloch and Schneider, Ichth., 1801, 513, pl. 96, America.
Cyclichthys cornutus Kaup, Wiegmann's Archiv, 1855, 231, Bahia.
4064. *Cyclichthys fuliginosus* (DeKay). *Black burrfish; Unspotted balloonfish.*
Atlantic coast from Cape Cod southward; not common.
Diodon fuliginosus DeKay, N. Y. Fauna: Fishes, 1842, 324, pl. 55, fig. 181, New York Harbor.
4065. *Cyclichthys antillarum* (Jordan and Rutter).
Cuba and Jamaica.
Chilomycterus antillarum Jordan and Rutter, Proc. Acad. Nat. Sci. Phila., XLIX, 1897, 131, Kingston, Jamaica.
4066. *Cyclichthys briareos* (Metzelaar).
Lesser Antilles.
Chilomycterus briareos Metzelaar, Trop. Atl. Vissch., 1919, 173, fig. 55, St. Eustatius.
4067. *Cyclichthys antennatus* (Cuvier).
West Indies and southward; St. Croix; Jamaica; Porto Rico; Cape of Good Hope.
Diodon antennatus Cuvier, Mém. Mus. Hist. Nat., IV, 1818, 131; no locality.
? *Chilomycterus puncticulatus* Poey, Anal. Soc. Española Hist. Nat., X, 1881, 346, Porto Rico.
- Genus 1456. **CHILOMYCTERUS** Bibron. *Burrfishes.*
Chilomycterus Bibron, in Barneville, Rev. Zool., 1846, 40 (*Diodon reticulatus* Linnæus = *Diodon atinga* Linnæus).
Cyanichthys Kaup, Wiegmann's Archiv, IV, 1855, 231 (*C. cæruleus* Kaup; not of Quoy and Gaimard).
Diodon Bleeker, Atlas Ind. Gymnod., 1865, 55 (*D. atinga*); not of authors, who, after Kaup, restrict *Diodon* to *D. hystrix*.
- Subgenus **CHILOMYCTERUS** Bibron.
4068. *Chilomycterus atinga* (Linnæus). *Atinga.*
West Indies to Bermuda and Florida Keys.
Diodon atinga (misprinted *atinga*) Linnæus, Syst. Nat., Ed. X, 1758, 334, India.
Diodon reticulatus Linnæus, loc. cit., 334, India; after Artedi.
4069. *Chilomycterus affinis* Günther.
Galapagos; coast of southern California; Hawaii, Japan; scarce.
Chilomycterus affinis Günther, Cat., VIII, 1870, 314, no locality; California?
Chilomycterus californiensis Eigenmann, Amer. Nat., V, 1891, 1133, San Pedro, Calif.

Genus 1457. LYOSPHERA Evermann and Kendall.

Lyosphæra Evermann and Kendall, Bull. U. S. Fish Com., XVII, 1897, 131 (*L. globosa* Evermann and Kendall).

4070. Lyosphæra globosa Evermann and Kendall. *Marblefish*.

Atlantic coast of the United States; known from the mouth of the Rappahannock River and from Biscayne Bay, Fla.

Lyosphæra globosa Evermann and Kendall, Bull. U. S. Fish Com., XVII, 1897, 131, pl. 9, figs. 11 and 12, Rappahannock River near mouth of Windmill Creek, Va.

Family 302. MOLIDÆ. Headfishes**Genus 1458. MOLA** Kœlreuter. *Headfishes*.

Mola Kœlreuter, Nova Comm. Act. Petropol., VII, 1770, 337 (*Diodon mola* Kœlreuter=*Diodon mola* Linnæus).

Mola Cuvier, Tableau Elem. Hist. Nat. Anim., 1798, 323 (*M. rotunda* Cuvier=*Tetrodon mola* Linnæus).

Orthogoriscus Schneider, ed. Bloch, Syst. Ichth., 1801, 510 (*Diodon mola* Bloch).

Cephalus Shaw, Gen. Zool., V, 1804, 432 (*Diodon mola* Linnæus).

Orthragus Rafinesque, Caratteri, 1810, 17 (*Tetrodon mola* Linnæus).

Diplanchias Rafinesque, loc. cit., 17 (*D. nasus* Rafinesque).

Tympanomium Ranzani, Novi Comm. Acad. Sci. Inst. Bonon., III, 1839, 81 (*T. planci* Ranzani).

Ozodura Ranzani, loc. cit., 81 (*O. orsini* Ranzani=*Mola mola* Linnæus).

Trematopsis Ranzani, loc. cit., 81 (*T. willughbei* Ranzani).

Pedalion Swainson, Nat. Hist. Fish. Amphib. etc., I, 1838, 199, II, 195, 329 (*Tetrodon mola* Linnæus).

Molacanthus Swainson, loc. cit., II, 1839, 329 (*M. pallasi* Swainson=*Diodon mola* Pallas, young).

Pallasia Nardo, Ann. Sci. Lombardo-Veneto, X, 1839, V, 10, 112 (*P. pallasi* Nardo).

Acanthosoma DeKay, Nat. Hist. N. Y., 1842, 350 (*A. carnatum* DeKay).

Centaurus Kaup, Wiegemann's Archiv Naturg., XXI, 1855, 221 (*Ostracion boops* Richardson; larval).

Aledon Castelnau, Mém. Poiss., Afr. Aust., VII, 1861, 75 (*A. storeri* Castelnau).

4071. Mola mola (Linnæus). *Ocean sunfish; Globe-fish; Sunfish; Headfish; Mola; Pez luna; Pez mola*.

Temperate and tropical seas, northward to England, Cape Cod, and San Francisco; rare in the West Indies.

Tetrodon mola Linnæus, Syst. Nat., Ed. X, 1758, 334, 412, Mediterranean.

Diodon carinatus Mitchell, Ann. Lyc. Nat. Hist. New York, II, 1815, 264, pl. 5, fig. 1, New York.

Ozodura orsini Ranzani, Nov. Comm. Ac. Sci. Inst. Bonon., III, 1839, 82, Mediterranean Sea.

Tympanomium planci Ranzani, loc. cit., table, Adriatic Sea.

Diplanchias nasus Ranzani, loc. cit., table, "in marei siculo" (Sicily).

Trematopsis willughbei Ranzani, loc. cit., table, "in oceano"

Orthragoriscus retzii Ranzani, loc. cit., table, no locality.

Orthragoriscus ghini Ranzani, loc. cit., table, Mediterranean Sea.

Orthragoriscus rondeletii Ranzani, loc. cit., Mediterranean Sea.

Orthragoriscus blochii Ranzani, loc. cit., "in mari oceano."

Orthragoriscus alexandrini Ranzani, loc. cit., Adriatic Sea.

Orthragoriscus redi Ranzani, loc. cit., Mediterranean Sea.

Orthragoriscus oculatus Ranzani, loc. cit., no locality.

Orthragoriscus elegans Ranzani, loc. cit., Atlantic Ocean.

Orthragoriscus battaræ Ranzani, loc. cit., Adriatic Sea.

Orthragoriscus lunaris Gronow, Cat. Fishes, ed. Gray, 1854, 165, Mediterranean.

Orthragoriscus solaris Gronow, loc. cit., 165, Mediterranean.

Orthragoriscus analis Ayres, Proc. Calif. Acad. Nat. Sci., II, 1859, 31, fig. 54, San Francisco.

Ostracion boops Richardson, Voy, *Erebus* and *Terror*, Ichth., 1844, 52, South Atlantic (larva).

Genus 1459. RANZANIA Nardo. *King of the mackerels.*

Ranzania Nardo, Ann. Sci. Regn. Lombard. Venet., X, 1840, 105
(*Tetrodon truncatus* Retzius).

4072. Ranzania truncata (Retzius)

Pelagic; occasionally on the Atlantic coast; Bermudas; Martinique.
Tetrodon truncatus Retzius, Vet. Ak. Nya. Handl., VI, 1785, 2, 121,
Brazil.

4073. Ranzania makua Jenkins.

Open Pacific, Hawaii to Japan; very rare, once found on Pismo Beach
near Oceano, San Luis Obispo County, Calif.
Ranzania makua Jenkins, Proc. Calif. Acad. Sci., 2d ser., V, 1895, 779,
with colored plate (frontispiece), Honolulu; probably not different
from *Ranzania truncata*; see Snyder, Proc. U. S. Nat. Mus., XLIV,
1913, 455.

Order AAA. PEDICULATI**Family 303. LOPHIIDÆ. Fishing frogs****Genus 1460. LOPHIUS** Linnæus.

Lophius Linnæus Syst. Nat., Ed. X, 1758, 236 (*Lophius piscatorius*
Linnæus); after Artedi.

4074. Lophius piscatorius Linnæus. *Fishing frog; Monkfish; Goosefish;*
Angler; Allmouth; Bellowsfish.

North Atlantic, on both coasts.
Lophius piscatorius Linnæus, Syst. Nat., Ed. XII, 1766, 402, Seas of
Europe.

Lophius americanus Cuvier and Valenciennes, Hist. Nat. Poiss., XII,
1837, 380, Philadelphia.

Genus 1461. LOPHIOMUS Gill.

Lophiomus Gill, Proc. U. S. Nat. Mus., V, 1882, 552 (*Lophius setigerus*
Vahl).

4075. Lophiomus setigerus (Vahl).

Pacific Ocean; not uncommon in rather deep water off coasts of China
and Japan; one specimen from Albatross station 2805, southwest of
Panama.

Lophius setigerus Vahl, Skrivt. Naturh., IV, 1797, 214, tab. 3, figs. 5
and 6, China Sea.

Lophius viviparus Bloch and Schneider, Syst. Ichth., 142, 1801, tab.
32, China Sea; after Vahl.

Family 304. ANTENNARIDÆ. Frogfishes**Genus 1462. HISTRIO** Fischer.

*Histrio*⁸⁵ Fischer, Zoog., Tab. Syn. Illust., Ed. III, I, 1813 (*Lophius*
histrio Linnæus).

Pterophryne Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 90 (*Chironectes*
lævigatus Cuvier; name preoccupied).

Pterophrynoides Gill, Proc. U. S. Nat. Mus., I, 1878, 216 (*Chironectes*
lævigatus Cuvier); substitute for *Pterophryne*).

4076. Histrio pictus (Cuvier and Valenciennes). *Mousefish; Sargassumfish.*

Tropical parts of the Atlantic; abundant on our Gulf coast and occa-
sional to Cape Hatteras and beyond.

Lophius tumidus Osbeck, Iter Chinensis, 1757, 400, open sea; pre-
Linnæan.

Chironectes pictus Cuvier and Valenciennes, Hist. Nat. Poiss., XII,
1837, 393, Surinam.

Chironectes tumidus Cuvier and Valenciennes, loc. cit., 397, Sargasso Sea.

Chironectes arcticus Duben and Koren, K. Vet. Akad. Stockholm, 1844,
72, Vadsö, Norway, carried northward on the Gulf Stream.

⁸⁵ Name questionable on account of error in the published diagnosis, the description interchanged with
that of *Lophius*.

4077. **Histrio gibba** (Mitchill).
West Indies, north to Key West and the Tortugas.
Lophius gibbus Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 1, pl. 4,
fig. 9, off St. Croix, lat. 22° N., long. 64° W.
Chironectes længatus Cuvier, Mém. Mus., III, 1817, 423, pl. 16, fig. 1;
South Carolina.
4078. **Histrio jagua** Nichols
Bermuda.
Histrio jagua Nichols, Proc. Biol. Soc. Wash., XXXIII, 1920, 62,
Bermuda.
- Genus 1463. **ANTENNARIUS**⁹⁸ Lacépède.
Antennarius Lacépède, Hist. Nat. Poiss., I, 1798, 421 (*Antennarius
bivertex totus ater puncto mediorum, laterum albo* Commerson (in foot-
note) = *Lophius commersonianus* Lacépède).
Chironectes Cuvier, Mém. Mus., III, 1817, 418 (*Lophius commersonianus*
Lacépède).
Capellaria Gistel, Thierreich, VIII, 1848 (*Lophius commersonianus*
Lacépède).
4079. **Antennarius scaber** (Cuvier).
Caribbean Sea; Port Castries; St. Lucia.
Chironectes scaber Cuvier, Mém. Mus., III, 1817, 425, pl. 16, fig. 2,
Martinique.
Lophius spectrum Gronow, Cat. Fish., ed. Gray, 1854, 49, Antilles;
after *Lophius acute scabra* Gronow, Zoophyl., 1781, 210.
4080. **Antennarius inops** Poey.
Porto Rico.
Antennarius inops Poey, Anal. Soc. Esp. Hist. Nat., X, 1881, 340 Porto
Rico.
4081. **Antennarius principis** (Cuvier and Valenciennes).
West Indies to Brazil.
Chironectes principis Cuvier and Valenciennes, Hist. Nat. Poiss., XII,
1837, 416, Brazil; on a drawing by Prince Maurice.
? *Chironectes mentzeli* Cuvier and Valenciennes, loc. cit., 416, Brazil; on
a drawing.
4082. **Antennarius tenebrosus** (Poey).
Cuba.
Chironectes tenebrosus Poey, Memorias, I, 1853, 219, pl. 17, fig. 1, Cuba.
4083. **Antennarius reticularis** Gilbert.
Gulf of California; only the type known.
Antennarius reticularis Gilbert, Proc. U. S. Nat. Mus., XIV, 1891, 566;
Gulf of California at Albatross station 2825.
4084. **Antennarius strigatus** Gill.
Cape San Lucas; Panama.
Antennarius strigatus Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 92;
Cape San Lucas
Antennarius tenuifilis Gunther, Fish. Cent. Amer., 1869, 440, Panama;
young.
4085. **Antennarius sanguineus** Gill.
Pacific coast of tropical America, Cape San Lucas to Panama; scarce.
Antennarius sanguineus Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863,
91; Cape San Lucas.
Antennarius leopardinus Gunther, Proc. Zool. Soc. Lond., 1864, 151;
Panama.
4086. **Antennarius ocellatus** (Bloch and Schneider).
West Indies, north to Florida.
Pescador Parra, Dif. Piezas, Hist. Nat., 1780, 1, tab. 1, Cuba.
Lophius histrio, var. *ocellatus* Bloch and Schneider, Syst. Ichth., 142,
180; after Parra.
Antennarius pleurophthalmus Gill, Proc. Acad. Nat. Sci. Phila., XV,
1863, 92; Key West.

⁹⁸ These fishes vary nominately in color and more or less in form. It is likely that the number of species should be reduced.

4087. *Antennarius tigris* (Poey).
Cuba
Chironectes tigris Poey, Memorias, I, 1853, 217, pl. 17, fig. 2; Cuba.
4088. *Antennarius nuttingii* Garman.
Great Bahama Banks.
? *Chironectes mentzelii* Cuvier and Valenciennes, Hist. Nat. Poiss., XII, 1837, 417; Brazil; on a drawing by Prince Maurice.
Antennarius nuttingii Garman, Bull. Iowa Lab. Nat. Hist., 1896, 83, Pl. II; Great Bahama Banks.
4089. *Antennarius multiocellatus* (Cuvier and Valenciennes). *Martin pescador*.
Garden Key, Fla., to Martinique.
Chironectes multiocellatus Cuvier and Valenciennes, Hist. Nat. Poiss., XI, 1837, 422, Martinique.
Antennarius annulatus Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 91, Garden Key, Fla.
Antennarius corallinus Poey, Repertorio, I, 1865, 188, Cuba.
4090. *Antennarius radiosus* Garman.
Key West.
Antennarius radiosus Garman, Bull. Lab. Nat. Hist. Iowa Univ., 1896, 85, pl. 1, off Key West in 50 fathoms.
4091. *Antennarius sonntagii* (Baron Müller).
Gulf of Mexico.
Chironectes sonntagii Baron J. W. von Müller, Reisen in den Verein. Staat., etc., Band I, 1864, 180, in floating seaweed, no exact locality stated.
4092. *Antennarius avalonis* Jordan and Starks.
Santa Barbara Islands.
Antennarius avalonis Jordan and Starks, Proc. U. S. Nat. Mus., XXXII, 1907, 77, fig. 8, Santa Catalina Island at Avalon, Calif.
4093. *Antennarius verrucosus* Bean.
Bermudas.
Antennarius verrucosus Bean, Proc. Biol. Soc. Wash., XIX, 1906, 31, St. George Island, Bermuda Islands.
4094. *Antennarius astroscopus* Nichols.
Barbados.
Antennarius astroscopus Nichols, Bull. Amer. Mus. Nat. Hist., XXXI, 1912, 109, Barbados.

Family 305. CHAUNACIDÆ

Genus 1464. CHAUNAX Lowe.

- Chaunax* Lowe, Proc. Zool. Soc. Lond., XIV, 1846, 339 (*C. pictus* Lowe).
4095. *Chaunax pictus* Lowe.
Madeira; taken off the coast of Rhode Island in the Gulf Stream.
Chaunax pictus Lowe, Trans. Zool. Soc. Lond., 1846, 339, Camera de Lobos, Madeira.
4096. *Chaunax nuttingi* Garman.
Florida keys,
Chaunax nuttingi Garman, Bull. Nat. Hist. Iowa Univ., 1896, 86, Sand Key Light, Fla.

Family 306. OGCOCEPHALIDÆ. Batfishes

Genus 1465. OGCOCEPHALUS Fischer. *Seabats*.

- Ogcocephalus* Fischer, Zoognosia, ed. 3, I, 1813, 70, 78 (*Lophius vespertilio* Linnæus).
Oncocephalus Gill, corrected spelling.
Malthe Cuvier, Règne Anim., ed. I, II, 1817, 311 (*Lophius vespertilio* Linnæus).
Malithæa of authors, modified spelling.

4097. *Ogcocephalus vespertilio* (Linnæus). *Batfish; Diablo*.
West Indies, north to Carolina.
Lophius vespertilio Linnæus, Syst. Nat., Ed. X, I, 1758, 236, American seas; after *Lophius fronti unicorn* of Artedi.
4098. *Ogcocephalus nasutus* (Cuvier and Valenciennes).
West Indies.
Malthæa nasuta Cuvier and Valenciennes, Hist. Nat. Poiss., XII, 1837, 452, Martinique.
Malthæa noiata Cuvier and Valenciennes, loc. cit., 453, Surinam; snout 15 in length; body spotted.
4099. *Ogcocephalus radiatus* (Mitchill).
Coast of Florida and neighboring waters; very common in shallow bays among weeds, especially about the Florida keys.
Lophius radiatus Mitchill, Amer. Month. Mag., March, 1818, 326, Straits of the Bahamas.
Malthæa cubifrons Richardson, Fauna Bor.-Amer., III, 1836, 103; said to be from Labrador, which is certainly an error.
? *Malthæa truncata* Cuvier and Valenciennes, Hist. Nat. Poiss., XII, 1837, 454, America; snout wholly obsolete; perhaps a species of *Zalieutes*.
- Genus 1466. *ZALIEUTES* Jordan and Evermann.
Zalieutes Jordan and Evermann, Check List, 1895, 511 (*Malthæa elater* Jordan and Gilbert).
4100. *Zalieutes elater* (Jordan and Gilbert).
Pacific coast of Mexico, south to Panama, in water of moderate depth; very rare near the shore but obtained in abundance by the *Albatross* at stations 2794 and 2795 near Panama.
Malthæa elater Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 365, Mazatlan.
- Genus 1467. *MALTHOPSIS* Alcock.
Malthopsis Alcock, Deep Sea Fish. Invest., Ann. Mag. Nat. Hist., VIII, 1891, 26 (*M. luteus* Alcock).
4101. *Malthopsis spinosa* Garman.
Off Bay of Panama in deep water.
Malthopsis spinosa Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 104, Pl. XXII, *Albatross* stations 3392 and 3393, off Panama, in 1,020 to 1,270 fathoms.
4102. *Malthopsis spinulosa* Garman.
Off Bay of Panama, in deep water.
Malthopsis spinulosa Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 106, Pls. XXI, XXVI, *Albatross* station 3394, lat. 7° 21' N., long. 79° 35' W. in 511 fathoms.
- Genus 1468. *HALIEUTICHTHYS* Poey.
Halieutichthys Poey, Proc. Acad. Nat. Sci. Phila., XV, 1863, 90 (*H. reticulatus* Poey = *Lophius aculeatus* Mitchill).
4103. *Halieutichthys aculeatus* (Mitchill).
Cuba to southern Florida.
Lophius aculeatus Mitchill, Amer. Month. Mag., II, 1818, 325, Straits of Bahamas.
Halieutichthys reticulatus Poey, in Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 91, Cuba.
4104. *Halieutichthys caribbæus* Garman.
Jamaica to Barbados, in depths of 70 to 150 fathoms or more.
Halieutichthys caribbæus Garman, Bull. Nat. Hist. Iowa Univ., 1896, 87, pl. 4, fig. 2, Jamaica to Barbados.
4105. *Halieutichthys smithii* Evermann and Marsh.
Porto Rico.
Halieutichthys smithii Evermann and Marsh, Bull. U. S. Fish Com., XX, 1900, 339, fig. 112, Mayaguez Harbor, Porto Rico.
- Genus 1469. *HALIEUTÆA* Cuvier and Valenciennes.
Halieutæa Cuvier and Valenciennes, Hist. Nat. Poiss., XII, 1837, 455 (*H. stellata* Cuvier and Valenciennes).

4106. *Halieutæa spongiosa* Gilbert.
Pacific Ocean, off Lower California.
Halieutæa spongiosa Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 124,
west of Revillagigedo Islands, at *Albatross* station 2992, lat. $18^{\circ} 17'$
 $30''$ N., long. $114^{\circ} 43' 15''$ W., in 460 fathoms.
- Genus 1470. **HALIEUTELLA** Goode and Bean.
Halieutella Goode and Bean, Proc. Biol. Soc. Wash., II, 1885, 88 (*H. lappa* Goode and Bean).
4107. *Halieutella lappa* Goode and Bean.
Gulf Stream.
Halieutella lappa Goode and Bean, Proc. Biol. Soc. Wash., II, 1882, 88,
Gulf Stream at *Fish Hawk* station 1151, lat. $39^{\circ} 58' 30''$ N., long.
 $70^{\circ} 37'$ W., in 125 fathoms.
- Genus 1471. **DIBRANCHUS** Peters.
Dibranchus Peters, Monatsber. Akad. Wiss. Berlin, 1875, 736 (*D. atlanticus* Peters).
4108. *Dibranchus atlanticus* Peters.
Gulf Stream.
Dibranchus atlanticus Peters, Monatsber. K. Akad. Wiss. Berlin, 1875,
736, with plate; West Africa, lat. 10° N. long. 17° W., in 360 fathoms.
- Family 307. **CERATHIDÆ.** Sea devils
- Genus 1472. **CERATIAS** Krøyer.
Ceratias Krøyer, Naturhist. Tidsskr., I, 1845, 639 (*C. hollbolli* Krøyer).
4109. *Ceratias hollbolli* Krøyer.
Greenland to Nova Scotia; four specimens known.
Ceratias hollbolli Krøyer, Naturh. Tidsskr., 1844, 639, Greenland.
- Genus 1473. **MANCALIAS** Gill.
Mancalias Gill, Proc. U. S. Nat. Mus., I, 1878, 227 (*Ceratias uranoscopus* Murray).
Typhlosaras Gill, Forest and Stream, 1883, Nov. 8, 284 (*T. shufeldti* Gill).
4110. *Mancalias uranoscopus* (Murray).
Deep seas; taken at Madeira and off the coast of southern New England.
Ceratias uranoscopus Murray, in Wyville Thompson, The Atlantic, II,
1878, 67, off Madeira.
4111. *Mancalias shufeldti* (Gill).
Western Atlantic.
Typhlosaras shufeldti Gill, Forest and Stream, November 8, 1883, 284,
western Atlantic.
- Genus 1474. **CRYPTOSARAS** Gill.
Cryptosaras Gill, Forest and Stream, Nov. 8, 1883 (*C. couesi* Gill).
4112. *Cryptosaras couesi* Gill.
Gulf Stream.
Cryptosaras couesi Gill, Forest and Stream, Nov. 8, 1883, 284, Gulf
Stream off New England.
- Genus 1475. **EDRIOLYCHNUS** Regan.
Edriolychnus Regan, Proc. Roy. Soc. Lond., ser. B, XCVII, 1925, 398
(*E. schmidt* Regan).
4113. *Edriolychnus schmidt* Regan.
Deep waters of the western Atlantic.
Edriolychnus schmidt Regan, Proc. Royal Soc. Lond., ser. B, XCVII,
1925, 398, western Atlantic; *Dana* expedition.
- Genus 1476. **MONOCERATIAS** Gilbert.
Monoceratias Gilbert, Proc. U. S. Nat. Mus., XLVIII, 1915, 379 (*M. acanthias* Gilbert).
4114. *Monoceratias acanthias* Gilbert.
Off Santa Barbara Islands, Calif.
Monoceratias acanthias Gilbert, Proc. U. S. Nat. Mus., XLVIII, 1915,
379, pl. 22, fig. 24, off Santa Cruz Island, 764 to 891 fathoms.

Genus 1477. BOROPHRYNE Regan.

Borophryne Regan, Ann. Mag. Nat. Hist., ser. 9, XV, 1925, 564 (*B. apogon* Regan).

4115. *Borophryne apogon* Regan.

Gulf of Panama.

Borophryne apogon Regan, Ann. Mag. Nat. Hist., ser. 9., XV, 1925, 564, Gulf of Panama.

Genus 1478. PHOTOCORYNUS Regan.

Photocorynus Regan, Proc. Roy. Soc. Lond., ser. B, XCVII, 1925, 393 (*P. spiniceps* Regan).

4116. *Photocorynus spiniceps* Regan.

Deep waters of Panama.

Photocorynus spiniceps Regan, Proc. Roy. Soc. Lond., ser. B, XCVII, 1925, 393, figs. 6-7, deep waters off Panama.

Family 308. HIMANTOLOPHIDÆ**Genus 1479. ONEIRODES Lütken.**

Oneiroides Lutken, Overs. Dansk. Vid. Selsk. Kjøbenhavn, 1871, 56 (*O. eschrichtii* Lütken).

4117. *Oneiroides eschrichtii* Lutken.

Deep sea off Greenland.

Oneiroides eschrichtii Lütken, Overs. Dansk. Vid. Selsk. Forhandl., 1871, 56, 9-18, pl. 2, deep sea off Greenland.

Genus 1480. HIMANTOLOPHUS Reinhardt.

Himantolophus Reinhardt, Dansk. Vid. Selsk. Afh. Kjøbenhavn, VII, 1838, 74 (*H. grænlandicus* Reinhardt).

4118. *Himantolophus grænlandicus* Reinhardt.

Greenland.

Himantolophus grænlandicus Reinhardt, Dansk. Vid. Selsk. Nat. Math. Afh., 1837, 74, Greenland.

Genus 1481. LOPHODOLUS Lloyd.

Lophodolus Lloyd, Mem. Indian Mus., II, 1909, 167 (*L. indicus* Lloyd).

4119. *Lophodolus acanthognathus* Regan.

North Atlantic.

Lophodolus acanthognathus Regan, Ann. Mag. Nat. Hist., 9 ser., XV, May, 1925, 563, north Atlantic.

Genus 1482. CORYNOLOPHUS Gill.

Corynolophus Gill, Proc. U. S. Nat. Mus., I, 1878, 219 (*Himantolophus reinhardtii* Lütken).

4120. *Corynolophus reinhardtii* (Lütken).

Greenland; one specimen known.

Himantolophus reinhardtii Lütken, Kong. Dansk. Vid. Selsk., 1878, 321, Greenland. Perhaps a species of *Himantolophus*.

Genus 1483. DOLOPICHTHYS Garman.

Dolopichthys Garman in Mem. Mus. Comp. Zool., XXIV, 1899, 81, (*D. allector* Garman).

4121. *Dolopichthys gracilispinis* Regan.

North Atlantic.

Dolopichthys gracilispinis Regan, Ann. Mag. Nat. Hist., 9 ser., XV, May, 1925, 563, north Atlantic.

4122. *Dolopichthys microlophus* Regan.

North Atlantic.

Dolopichthys microlophus Regan, Ann. Mag. Nat. Hist., 9 ser., XV, May, 1925, 563, north Atlantic.

4123. *Dolopichthys anisacanthus* Regan.

North Atlantic.

Dolopichthys anisacanthus Regan, Ann. Mag. Nat. Hist., 9 ser., XV, May 1925, 562, north Atlantic.

4124. *Dolopichthys luetkeni* Regan.
Gulf of Panama.
Dolopichthys luetkeni Regan, Ann. Mag. Nat. Hist., 9 ser., XV, May, 1925, 562, Gulf of Panama.
4125. *Dolopichthys heteracanthus* Regan.
Gulf of Panama.
Dolopichthys heteracanthus Regan, Ann. Mag. Nat. Hist., 9 ser., XV, May, 1925, 563, Gulf of Panama.
- Genus 1484. *LASIOGNATHUS* Regan.
Lasiognathus Regan, Ann. Mag. Nat. Hist., 9 ser., XV, 1925, 563 (*L. saccoctoma* Regan).
4126. *Lasiognathus saccoctoma* Regan.
Caribbean Sea.
Lasiognathus saccoctoma Regan, Ann. Mag. Nat. Hist., 9 ser., XV, May, 1925, 563, Caribbean Sea.
- Genus 1485. *LINOPHRYNE* Collett.
Linophryne Collett, Proc. Zool. Soc. Lond., 1886, 138 (*L. lucifer* Collett).
4127. *Linophryne lucifer* Collett.
Open Atlantic.
Linophryne lucifer Collett, Proc. Zool. Soc. Lond., 1886, 138, pl. 15, off Madeira, lat. 36° N., long. 20° W.
4128. *Linophryne polypogon* Regan.
North Atlantic
Linophryne polypogon Regan, Ann. Mag. Nat. Hist., 9 ser., XV, May, 1925, 565, North Atlantic.
4129. *Linophryne arborifer* Regan.
North Atlantic.
Linophryne arborifer Regan, Ann. Mag. Nat. Hist., 9 ser., XV, May, 1925, 564, North Atlantic.
4130. *Linophryne macrodon* Regan.
Gulf of Panama.
Linophryne macrodon Regan, Ann. Mag. Nat. Hist., 9 ser., XV, May, 1895, 564, Gulf of Panama.
- Genus 1486. *CHÆNOPHRYNE* Regan.
Chænophryne Regan, Ann. Mag. Nat. Hist., 9 ser., XV, May, 1925, 564 (*C. longiceps* Regan).
4131. *Chænophryne longiceps* Regan.
North Atlantic and Gulf of Panama.
Chænophryne longiceps Regan, Ann. Mag. Nat. Hist., 9 ser., XV, May, 1925, 564, North Atlantic.

Family 309. *MELANOCETIDÆ*

- Genus 1487. *MELANOCETUS* Günther.
Melanocetus Günther, Proc. Zool. Soc. Lond., 1864, 301 (*M. johnsoni* Günther).
4132. *Melanocetus polyactis* Regan.
Gulf of Panama.
Melanocetus polyactis Regan, Ann. Mag. Nat. Hist., 9 ser., XV, May, 1925, 565, Gulf of Panama.
4133. *Melanocetus niger* Regan.
Gulf of Panama.
Melanocetus niger Regan, Ann. Mag. Nat. Hist., ser. 9, XV, May, 1925, 565, Gulf of Panama.
- Genus 1488. *LYOCETUS* Günther.
Lyocetus Günther, *Challenger* Rept., XXII, 1887, 57 (*L. murrayi* Günther).

4134. *Lyocetus murrayi* (Günther).Mid-Atlantic at *Challenger* stations 106 and 348.*Melanocetus (Liocetus) murrayi* Günther, *Challenger* Rept., XXII, 1887, 57, pl. 11, fig. A, mid-Atlantic.**Family 310. CAULOPHRYNIDÆ****Genus 1489. CAULOPHRYNE Goode and Bean.***Caulophryne* Goode and Bean, *Oceanic Ichth.*, 1895, 496 (*Caulophryne jordani* Goode and Bean).**4135. *Caulophryne jordani* Goode and Bean.**

Gulf Stream.

Caulophryne jordani Goode and Bean, *Oceanic Ichth.*, 1895, 496, pl. 21, fig. 409, Gulf Stream off Carolinas in 1,276 fathoms.**Family 311. ACERATIIDÆ****Genus 1490. RHYNCHOCERATIAS Regan.***Rhynchoceratias* Regan, *Ann. Mag. Nat. Hist.*, 9 ser., XV, May, 1925, 566 (*R. brevirostris* Regan).**4136. *Rhynchoceratias leucorhinus* Regan.**

North Atlantic and Gulf of Panama.

Rhynchoceratias leucorhinus Regan, *Ann. Mag. Nat. Hist.*, 9 ser., XV, May, 1925, 566, north Atlantic.**4137. *Rhynchoceratias rostratus* Regan.**

Gulf of Panama.

Rhynchoceratias rostratus Regan, *Ann. Mag. Nat. Hist.*, 9 ser., XV, May, 1925, 567, Gulf of Panama.

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